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METZ

THE  
VEGETABLE SYSTEM.

OR,  
The INTERNAL STRUCTURE,  
AND  
The LIFE OF PLANTS;

Their PARTS and NOURISHMENT explained;  
THEIR  
CLASSES, ORDERS, GENERA, and SPECIES  
Ascertained and Described,  
In a METHOD altogether NEW.

COMPREHENDING  
AN ARTIFICIAL INDEX,  
AND  
A NATURAL SYSTEM.

With FIGURES of all the PLANTS;  
Designed and Engraved by the AUTHOR.

The WHOLE from NATURE only.

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By JOHN HILL, M. D.

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VOL. II. PART II.

CONTAINING  
PLANTS with RADIATED FLOWERS.

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LONDON:

Printed at the EXPENCE of the AUTHOR;

And sold by R. BALDWIN, in Pater-Noster-Row.

MDCCLXI.

R A D I A T E S.

O R D E R IV.

With the general Cup TILED, or composed of several series of Scales.

G E N U S I.

S U N F L O W E R.

H E L I A N T H U S.

Character of the Genus.

The Scales are similar, and all leafy; they stand loose, and are waved and curled.

Plate 37. Fig. o a.

1. SMOOTH SUNFLOWER.

Plate 37. Fig. 1.

Character of the Species.

*Helianthus laevis.*

The Leaves are lanced, indented, and smooth on the surface.

Fig. 1. a.

THIS is a Perennial, native of Virginia; a Plant five feet high; flowering all Autumn. The Leaves are deep green, and the Flowers gold yellow.

2. LINEAR SUNFLOWER.

Plate 37. Fig. 2.

Character of the Species.

*Helianthus angustifolius.*

The Leaves are rough, narrow, and all the way of equal breadth.

Fig 2. a.

THIS also is a Perennial native of Virginia; and flowers from August to October. The Leaves are brownish and uneven; the Flowers are large and of a deep yellow.

SUN-FLOWER.

Pl. 7

Generic  
Character



Smooth  
Sun-flower.

Linear  
Sun-flower.

Long-rected  
Sun-flower.

Short-ribbed  
Sun-flower.

Spreading Sun-flower.





## 3. LONG-ROOTED SUNFLOWER.

Plate 37. Fig. 3.

Character of the Species.

*Helianthus strumosus.*

The Root is spindled like a Carrot; the Leaves are oval and indented.

THIS also is a Perennial, native of North-America: a vast Plant, ten feet high; with grey green Leaves and very fine yellow, though small Flowers. The Leaves have three great Ribs, and the Stalk sends out many branches,

## 4. SHORT-RIBBED SUNFLOWER.

Plate 37. Fig. 4.

Character of the Species.

*Helianthus decapitalus.*

The Leaves are oval, not at all hearted: they have three ribs, which join within the Leaf.

Fig. 4. a &amp; b.

THIS is a native of North-America, a Perennial; four feet high, and very elegant: the Stalks are crimson; the Leaves are a deep green, and the Flowers of a perfect gold yellow. The Scales of the Cup are not more than two or three and twenty, and the Rays of the Flower about thirteen. LINNÆUS makes them only ten; but here at Bayeswater, where the Plant is in unmanured ground, and every way in a perfect state of Nature, they are thirteen. The Ribs terminating within the Leaf, as in the generality of Plants, distinguish this from our eighth Species, which it resembles; for there they run back naked.

## 5. SPREADING SUNFLOWER.

Plate 37. Fig. 5.

Character of the Species.

*Helianthus divaricatus.*

The Leaves are oval, and without Foot-stalks; the Stalk is scattered over with dewy hairs.

Fig. 5. a &amp; b

THIS is also a perennial, native of North-America; a Plant of five feet high, flowering all Autumn. The Leaves are of a dead green

green, and have three great Ribs : the Flowers are of a deep yellow, and spread in broad heads.

## 6. GIANT SUNFLOWER.

Plate 36. Fig. 6.

Character of the Species.

*Helianthus giganteus.*

The Leaves are lanced, undivided at the edge, and rough.

Fig. 6. *a b.*

THIS is the tallest of the *Helianthus* kind ; it is now thirteen feet high with me : but the Flowers for such a stature are not large : it is a Perennial ; native of the country about Quebec, and flowers in October : the Leaves are of a pale green, and rough : the Flowers have numerous Rays, and are of a pale yellow.

## 7. ANNUAL SUNFLOWER.

Plate 38. Fig. 7. GREAT SUNFLOWER.

Character of the Species.

*Helianthus annuus.*

The Leaves are hearted and their three ribs run naked behind the base

Fig. 7. *a b.*

THIS is a native of South-America, an Annual ; the rest are all perennial, and North-Americans. The Leaves of this are pale ; and the ribs, which are naked behind, are thick. The Flower is enormous.

## 8. LONG-RIB'D SUNFLOWER.

Plate 38. Fig. 8. PERENNIAL SUNFLOWER.

Character of the species.

*Helianthus multiflorus.*

The Leaves are oval, and a little hearted ; their ribs run out behind the base.

Fig. 8. *a a b.*

THIS is a Perennial, native of North-America, and has been long known in our gardens by the name of Perennial Sunflower : it easily becomes

# SUN-FLOWER.

Pl. 38.



7  
Annual  
Sun Flower.



6  
Giant Sun Flower.



8  
Long-rib'd Sun Flower.



9  
Tuberous Sun Flower.



10  
Red-disk'd Sun Flower.



becomes double by culture, and makes a very good appearance. It flowers from July to November. The Leaves toward the bottom of the Stalk are hearted at the Base.

### 9. TUBEROUS SUNFLOWER.

Plate 38. Fig. 9. JERUSALEM ARTICHOAK.

Character of the Species.

*Helianthus tuberosus*.

The Leaves are oval, lightly hearted and rough; the root is tuberous.

Fig. 9. *a b*.

THIS is a Perennial, native of South-America, but free to bear the open air with us; is the Plant which in our kitchen-gardens has the amazing name Jerusalem Artichok. The Stalk is twelve feet high; the Leaves are pale; and the Flowers are small: the Root is formed of numerous thick knobs.

### 10. RED-DISKED SUNFLOWER.

Plate 38. Fig. 10.

Character of the Species.

*Helianthus atrorubens*.

The Scales of the Cup are very little waved or spread: the Leaves are oval.

Fig. 10. *a b*.

THIS is also a Perennial, native of North-America; a Plant of five feet high, flowering from August to November. The Leaves are pale; the Flowers are yellow, but have a deep crimson Disk.

\* \* The Cup is singular; it just preserves the *Helianthus* character: and this is the Plant which in the method of Nature connects the *Helianthus* and *Bupthalmum*.

## G E N U S II.

## O X - E Y E .

## B U P T H A L M U M .

Character of the Genus.

The Scales of the Cup are long and leafy : they stand close, upright, simple, and compact.

Fig. 39. *o a a*.

## 1. HELIANTHOIDE OX-EYE.

Plate 39. Fig. 1.

Character of the Species.

*Bupthalmum helianthoides*.

The Leaves are hearted, and have one side shorter at the base. They have three ribs, and are waved

Fig. 1. *a a*.

THIS singular Plant is the plain Species, by which Nature, who connects all genera, when we have opportunities of knowing the Plants, unites the *Helianthus* and *Bupthalmum*. In the last *Helianthus*, the leafy Scales of the Cup were waved but little, and stood nearly close, in this which is the first of the *Bupthalmums*, the Scales have lost that little undulation, and stand quite close; the Cup has therefore formed its full distinction.

THIS is a beautiful as well as singular Plant : a Perennial, native of North-America, with deep green Leaves, roughened by a few scattered hairs, and reddish Stalks, whose branching heads are covered with large yellow Flowers.

## 2. D O W N Y O X - E Y E .

Plate 39. Fig. 2.

Character of the Species.

*Bupthalmum salicifolium*.

The Leaves are lanced, lightly ferrated, and downy.

Fig. 2. *a l*.

WE are returned to Europe : the *Helianthus*'s are all Americans ; and even the connecting Plant, and that which leads the way into this

*OX-EYE.*

*Pl. 30.*



*Generic Character.*



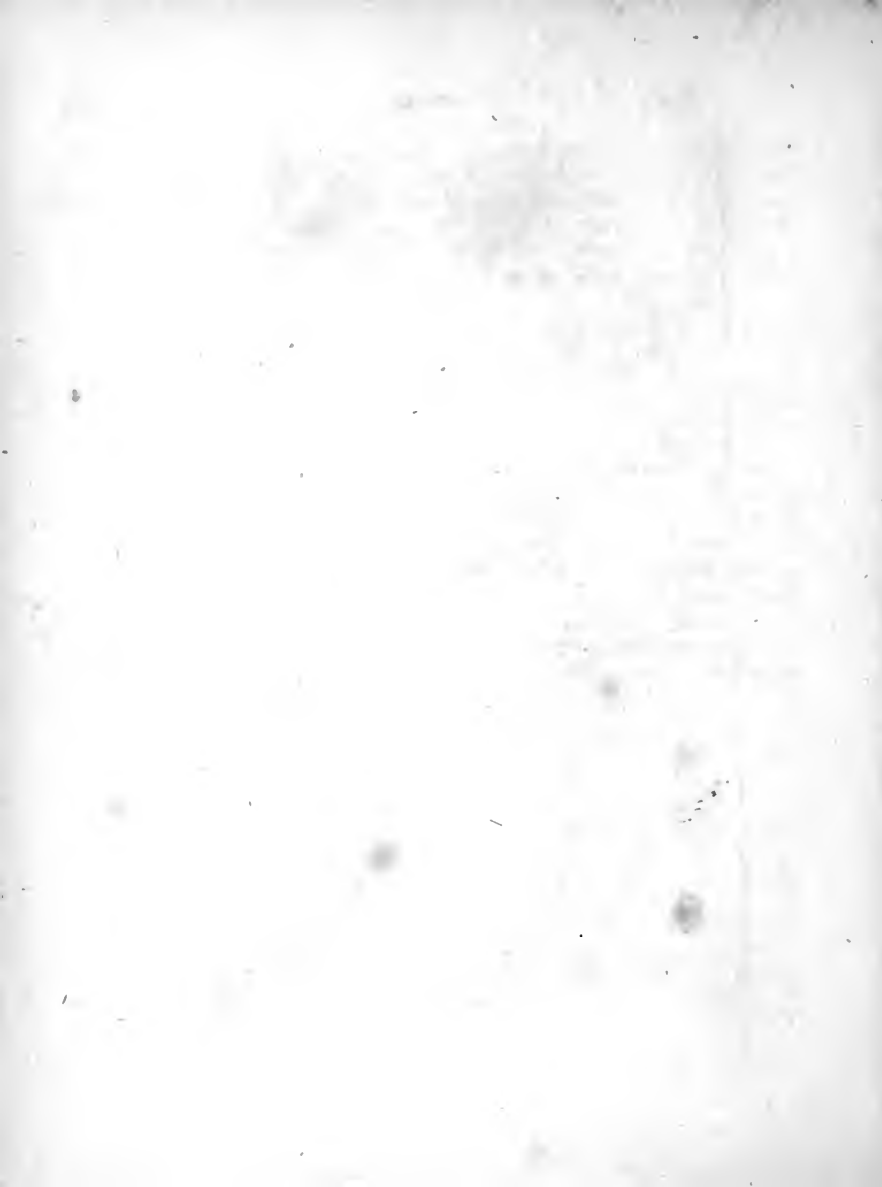
*Helianthoid Ox-Eye.*



*Daisy Ox-Eye.*



*Glossy-leaved Ox-Eye.*





this Genus : but the next step brings us home. This is a native of Germany and of the South of France, where it gilds, as it were, the shadowy bottoms of the hills with its innumerable Flowers all the latter part of Summer. The Stalk is firm and pale ; the Leaves are of a greyish green, and the Flowers beautifully yellow. It lives in our open borders with little care, and flowers in vast profusion.

### 3. GLOSSY-LEAVED OX-EYE.

Plate 37. Fig. 3.

Character of the species.

*Bupthalmum grandiflorum.*

The Leaves are lanced, dented, and perfectly smooth.

Fig. 3. a b.

THIS also is a Perennial, native of the European hills, and flowers in vast abundance in our open borders. The Plant is two feet high ; the Stalks are hard, green, but little branched, and leafy. The Leaves are of a glossy green : the Flowers are very large and yellow ; but the Rays are narrow, and there is a natural openness between them, which greatly hurts the full look of the Flower.

\* \* I HAVE this Plant at Bayswater with the Leaf undivided at the edge, but it is merely a variety, no distinction of Species.

## G E N U S III.

### B O I L - W E E D .

#### B U B O N I U M .

Character of the Genus.

The Scales of the Cup are dissimilar, and the lower range is long and leafy.

Plate 40. Fig. o a.

IT is the custom to unite the Plants which compose this Genus with the *Bupthalmum* ; but the distinctive character is absolute : the name we have here given the Genus is as old as the first Naturalists ;  
and

and DIOSCORIDES has ascertained the Plants to which it then belonged: he describes accurately the leafy range of Scales: he says they are small Leaves radiated as a Star.

### 1. LANCED BOIL - WEED.

Plate 40. Fig. 1.

Character of the Species.

*Bupthalmum spinosum.*

The Leaves are lanced, and the long Scales of the Cup are sharp-pointed.

Fig. 1. *a b.*

THIS is an Annual, a very singular Plant, native of the way-sides and borders of fields, in all the southern Europe. It is two feet high; the Leaves embrace the Stalk at their Base; they are numerous, and of a coarse green. The Flowers are yellow, and their surrounding Star is of a dusky green. It flowers in August.

\* \* This is a particular *Beesom* of DIOSCORIDES. It is of importance to be sure of it, because its virtues, as an astringent, are very great. If any doubt, because he adds *αργεῖον* to the epithets of the Flower; let it be observed, the Ancients attributed the same colour to the Swan; they meant only bright and glowing by the word; and DIOSCORIDES himself has called it also yellow.

### 2. SESSILE-FLOWERED BOIL - WEED.

Plate 40. Fig. 2.

Character of the Species.

*Bupthalmum aquaticum.*

The Flowers stand close in the wings of the Branches, and the long Scales of the Cup are obtuse.

Fig. 2. *a b.*

THIS is also an Annual, a little but very pretty plant; native of the South of Europe, and common also to the East. The Stalks lean; the Leaves are of a pale, but not unpleasing green: the Flowers which sit close in the bosoms of the Shoots are delicately yellow: it blows in August.

### 3. FOOT -

BOYLWEED.

Pl. 40.



Generic Character.

Lanced Boylweed.

Woody Boylweed.



Footstalked Boylweed.



Sepale flowered Boylweed



## 3. FOOT-STALKED BOIL-WEED.

Plate 40. Fig. 3.

Character of the Species.

*Bupthalmum maritimum.*

The Flowers terminate the Stalks and Branches, and the long Scales of the Cup are rounded at the end.

Fig. 3. *a b.*

THIS is an Annual, native of the sea-coasts of Sicily, Italy, and France; the Stalks lie on the ground, and are woody at the Base. The Leaves are delicately hoary, and the Flowers of a gold yellow. It flowers in August.

## 4. WOODY BOIL-WEED.

Plate 40. Fig. 4.

Character of the Species.

*Bupthalmum frutescens.*

The Leaves are lanced, and there are two teeth on each of their Footstalks.

Fig. 4. *a b.*

THIS is a Perennial, native of Jemaica; the Stem is brown; the Leaves are white and silky; the Flowers appear in July, and are yellow. We are not to wonder at the woody Stalk in this, the preceding Species has it also, though an Annual.

## G E N U S IV.

## E L F - W O R T.

## I N U L A.

Character of the Genus.

The Scales are narrow; they stand loose, and the lowest Range is slightly leafy.

Plate 41. Fig. 1. *a b.*

## 1. WRINKLED ELF-WORT.

Plate 41. Fig. 1.

ELECAMPANE.

Character of the Species.

*Inula Helenium dicta.*

The Leaves are deeply wrinkled, and woolly underneath.

Fig. 1. a b.

THIS is a Perennial, native of Holland and Germany; a robust rough looking Plant, four feet high, with numerous and specious golden Flowers: the Leaves are pale, and the Stalk is usually purplish. It Flowers in August. Its excellence, as a Medicine in diseases of the breast, led our Ancestors to cultivate it universally in their Gardens; and from the abundance of it now growing in such ground converted to other uses, it is generally supposed a native of our kingdom.

## 2. FEW-FLOWERED ELF-WORT.

Plate 41. Fig. 2.

*Inula odora.*

Character of the Species.

The radical Leaves are oval, and those on the Stalk are lanced, amplexicaul, and serrated.

Fig. 2. a b.

THIS also is a Perennial, a native of the southern parts of Europe universally; flowering from July to October. The Stalk is red; the Leaves are hairy and of a pale green. The Flowers are few; but they are large, and of a pale tho' delicate yellow.

## 3. WOOLLY ELF-WORT.

Plate 41. Fig. 3.

*Inula oculus Christi dicta.*

Character of the Species.

The Leaves are oblong and undivided, and the whole Plant is woolly.

Fig. 3. a b.

THIS is a Perennial, native of Germany; a hardy Plant, flowering all Autumn. The Stalk is woolly, and divides into many branches  
at

ELFWORT.

Pl. A.



Generic  
Character.



Wrinkled Elfwort? 1



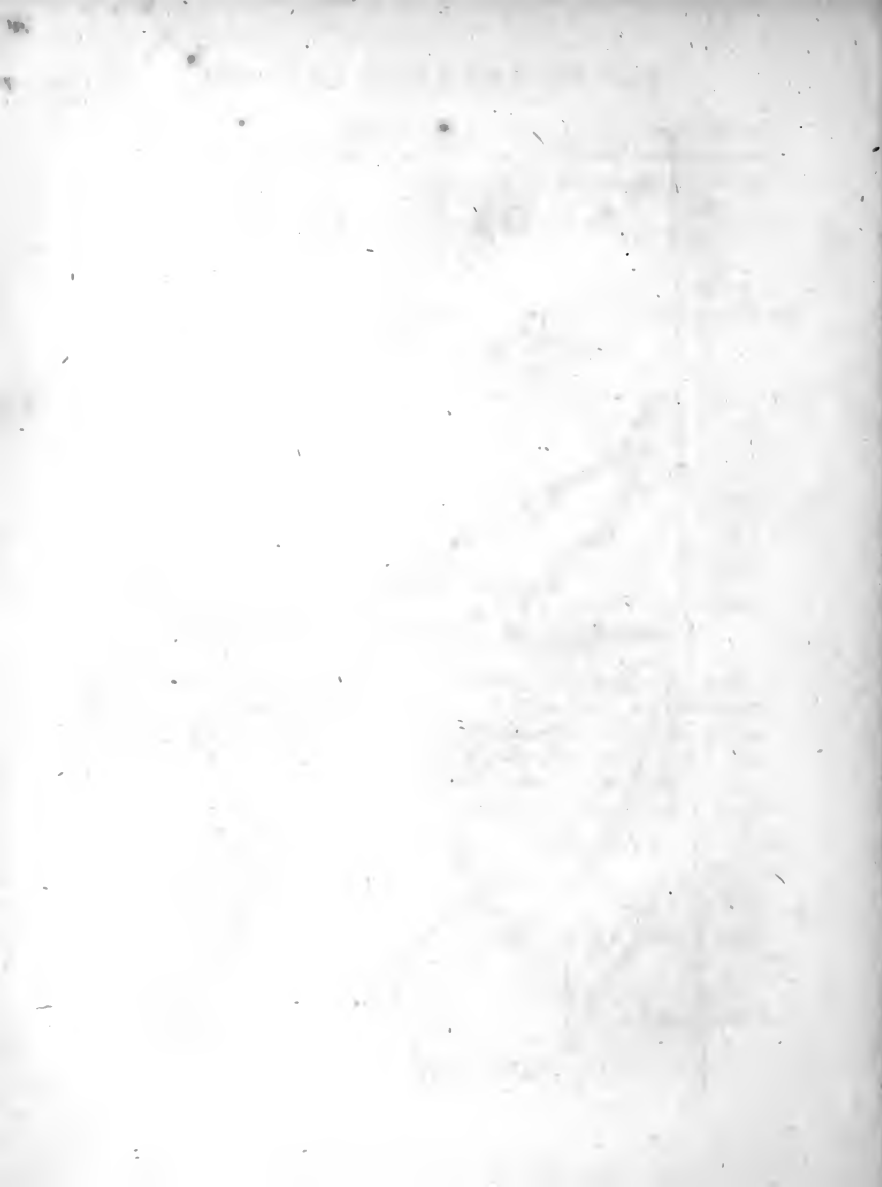
Few flower'd  
Elfwort. 2



Woolly Elfwort? 3



Sun-leaved Elfwort. 4





at the top. The Leaves are covered with a white downy matter : they embrace the Stalk, and have an undivided edge. The Flowers are large, and of a strong yellow.

#### 4. SAWED-LEAV'D ELF-WORT.

Plate 41. Fig. 4.

Character of the Species.

*Inula Britannica.*

The Leaves are sharply sawed at the edge, lanced, and joined to the Stalk by a broad Base.

Fig. 4. *ab.*

THIS is a Perennial, native of Germany ; a tall branching Plant, covered at the top with handsome yellow Flowers all Autumn. The Leaves are of a good green, and smooth on the upper side ; pale and downy below. The Root creeps almost upon the surface of the ground.

#### 5. CLAMMY ELF-WORT.

Plate 42. Fig. 6.

Character of the Species.

*Inula dysenterica.*

The Scales of the Cup are remarkably narrow.

Fig. 6. *aa.*

THIS is a Perennial, native of our own kingdom, and covers the ditch banks in many places. It is a foot and a half high : the Leaves are whitish, soft to the touch, and clammy. The Stalk is covered with woolly hairs : the Flowers are numerous, and of a very bright yellow : they blow from August to November, and cover the tops of the Plant in great numbers.

#### 6. HALF NAKED ELF-WORT.

Plate 42. Fig. 6.

Character of the Species.

*Inula pulicaria.*

The Leaves are waved at the edge, and the Stalk leans.

Fig. 6. *ab.*

THIS is an Annual, a little dirty-looking and very inconsiderable Plant, frequent in our wet clays ; and flowers from July to September.

ber. It is scarce ten Inches high. The Stalk is of a dusky brick colour: the Leaves of a brown green; and the Flowers not conspicuous, though they are large enough; for they have scarce any Rays, and are of a very dusky yellow: there is abundance both of this and the preceding, in the new road from Shepherd's-Bush to Hammer-smith.

## 7. RIDG'D-STALKED ELF-WORT.

Plate 42. Fig. 7.

Character of the Species.

*Inula Salicina.*

The Branches are highly ridg'd and angulated; the Leaves are smooth on the surface; but have a rugged edge.

Fig. 7. *ab.*

THIS is a Perennial, common to the northern nations of Europe except this, and flowers on the edges of bogs, and of the Dutch dykes all Autumn. The Stalk is smooth at the Base and reddish; the young shoots also are angulated; the Leaves are of a fine strong green: the Flowers are large, and of a very fine yellow.

## 8. HARSH-LEAVED ELF-WORT

Plate 42. Fig. 8.

Character of the Species.

*Inula hirta.*

The Leaves are covered with short upright bristles; the Stalks are hairy and round.

Fig. 8. *ab.*

THIS is a Perennial, common in Germany and Switzerland at the bottom of hills, and in damp shaded ground: it flowers in August. The Stalk is whitish; the Leaves are of a grey green, a coarse aspect, and not only rough, but harsh to the touch, from the firmness of the hairs scattered thick over them, which are like so many bristles. They have large Ribs, and stand drooping. The Flowers are yellow.

## 9. CURLED.

ELFWORT.

2

Pl. 42.



5  
a. a.  
*Clammy Elfwort.*



6  
*Half-naked Elfwort.*



7  
b.  
*Rigid Stalk'd Elfwort.*



8  
b. a.  
*Harsh-leaved Elfwort.*



## 9. CURLED ELFWORT.

Plate 43. Fig. 9.

Character of the Species.

*Inula Germanica.*

The Leaves are lanced, and curled back at the edge: the Flowers are clustered.

Fig. 9. *a b.*

THIS is a Perennial, native of the northern parts of Europe, and of Seberia: it is a robust rough looking Plant, of four feet high, and flowers in damp soils from July till winter. The Leaves are of a brownish green, and rough. The Flowers are small and yellow; but they appear conspicuous from their number, and somewhat singular from their disposition.

## 10. NERVOUS ELFWORT.

Plate 43. Fig. 10.

Character of the Species.

*Inula ensifolia.*

The Leaves are high-rib'd; linear, but pointed; and the Stalk bears but two or three Flowers.

Fig. 10 *a b.*

THIS is a Perennial, native of Germany; an elegant Plant of two feet high; flowering by the sides of Woods, and among slight Thickets, from August to October. The Stalk is red toward the ground; the Leaves are of a strong and glossy green. The Flowers are large and yellow: there usually are but two or three on a Stalk, sometimes only one; but Culture gives four or five.

## 11. THREE POINTED ELFWORT.

Plate 43. Fig. 11.

Character of the Species.

*Inula crithmoides.*

The Leaves are narrow, fleshy, and divided into three points at the end.

Fig. 11. *a.*

THIS is a native of our own Country; a Perennial sea-side Plant of great singularity and extreme beauty. It flowers from June to October: it is a juicy, tender looking Herb of a yard high. The

Leaves are bluish, and the Flowers are of a gold yellow, very large and delicate. We have a great deal of it near Malden in Essex, and it is very common in Wales.

## 12. ONE FLOWERED ELFWORT.

Plate 43 Fig. 12.

Character of the Species.

*Inula provincialis.*

The lower Leaves are oval; the others lanced and serrated; and the Stalk supports but one Flower.

Fig. 12. *abc.*

THIS is a Perennial, native of Switzerland, and some parts of France, and flowers in August. The Stalk is about a foot high, and is crowned with only one vast yellow Flower: The Leaves are of a good green above, but hoary underneath.

## 13. WOOLLY ELFWORT.

Plate 43. Fig. 13.

Character of the Species.

*Inula Montana.*

The Leaves are lanced, undivided at the edge, and woolly.

Fig. 13. *ab.*

THIS also is a perennial, native of Switzerland, a very elegant Plant. The Leaves are white and cottony: the Flower is large, and of a gold yellow, often there is only one on the Plant, rarely more than two.

## G E N U S V.

### CORN MARYGOLD.

### CHRYSANTHEMUM.

Character of the Genus.

The Cup is hemispheric: the Scales stand close: the outer Ranges are smallest; and those of the innermost Series have filmy edges.

Plate 44. Fig. 14. *abc.*

I. TRI-

ELF-WORT.  
3

Pl. 43



*Curl'd Elf-wort.*



*Nervous Elf-wort.*



*Three-pointed Elf-wort.*



*One-flower'd Elf-wort?*



*Woolly Elf-wort?*





## I. TRIFID CORN MARYGOLD.

Plate 44. Fig. 1.

Character of the Species.

*Chrysanthemum frutescens.*

The Leaves are narrow, and cut into three irregular Points at the end.

Fig. 1. a

THIS is a delicate Plant, native of the Canary Islands, where it flowers in great profusion all the Summer. The bottoms of the Stems are brown and woody: the rest is green and tender. The Leaves are of a faint but elegant green: the Flowers are snow white and very pretty. With us it requires the green house in winter.

## 2. DEEP-CUT CORN MARYGOLD. GREAT DAISY.

Plate 44. Fig. 2.

Character of the Species.

*Chrysanthemum serotinum.*

The Leaves are cut so deep, they seem jagged; they are lanced and pointed.

Fig. 2. a.

THIS is an old inhabitant of our gardens; but where it is a native none knows; perhaps it is one of the remote Americans from the inland country. It flowers in September: the Stalk is firm; the Leaves are of a strong green; and the Flowers are very large and white.

## 3. AMPLEXICAUL CORN MARYGOLD.

Plate 44. Fig. 3.

Character of the Species.

*Chrysanthemum leucanthemum.*

The Leaves embrace the Stalk: they are oblong, fawed toward the top, and dented below.

Fig. 3. a b.

THIS is a Perennial, native of our pastures, the Plant we have been used to call the Great Daisy. It is a foot and a half high. The Leaves are of a good green; the Stalk is angulated, and the Flowers are large and snow white. It blows in June, and is very common.

4. SPA -

## 4. SPATULA'D CORN MARYGOLD.

Plate 44. Fig. 4.

Character of the Species.

*Chrysanthemum montanum.*

The lower Leaves are spatula'd ; the upper linear.

Fig. 4. *a b.*

THIS is a Biennial, native of the south of France ; a very singular and pretty Plant ; flowering from June to August. The lower Leaves are of the true spatula form, round at the end, with a flat Base : those a little higher are lanced, and the top ones linear. All are of a pale, but fresh green ; and the Flowers are beautifully white.

## 5. GRASSY CORN MARYGOLD.

Plate 44. Fig. 5.

Character of the Species

*Chrysanthemum graminifolium.*

The Leaves are long, narrow, and perfectly grassy.

Fig 5. *a b.*

THIS is a Perennial, native of Montpelier ; a pretty little Plant, flowering in July. The Leaves are of a pale green, and the Flowers snow white.

## 6. PALMATED CORN MARYGOLD.

Plate 45. Fig. 6.

Character of the Species.

*Chrysanthemum Monspelienfe.*

The lower Leaves are palmated : those on the Stalk are pinnatifid, and deep jagged.

Fig. 6. *a b.*

THIS is a Perennial, native of the south of France, common by the sides of their vineyards ; and flowers in August. The Stalk is tinged with brown : the Leaves are of a faint green, smooth, and delicately cut : the Flowers are large and white ; they cover the branchy top of the Plant for a long time.

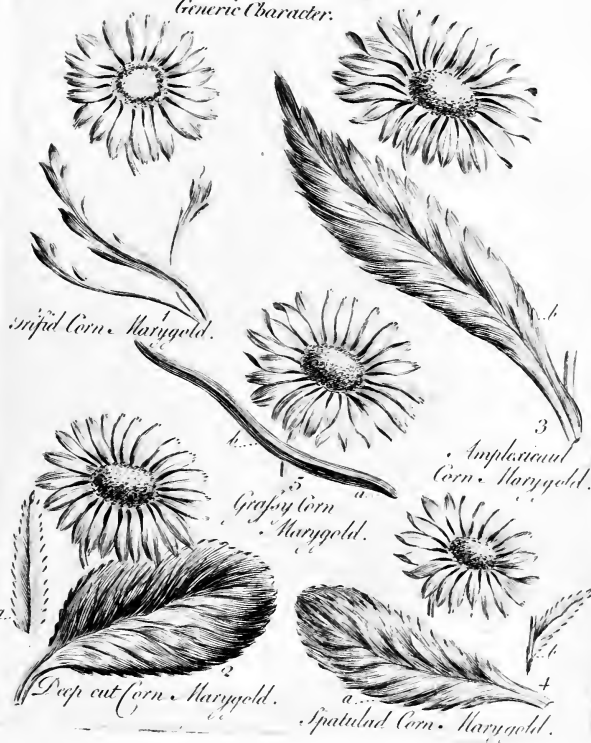
## 7. PIN -

CORN-MARYGOLD.

PL. 44.



Generic Character.



1. *Infid* Corn-Marygold.

3. *Amplexicaul* Corn-Marygold.

5. *Grofy* Corn-Marygold.

2. *Deep cut* Corn-Marygold.

4. *Spatulat* Corn-Marygold.



## 7. PINNATIFID CORN MARYGOLD.

Plate 45. Fig. 7.

Character of the Species.

*Chrysanthemum Alpinum.*

The Leaves are regularly pinnatifid: the Stalk supports only one Flower.

Fig. 7. *ab.*

THIS is a Perennial, native of Switzerland, and many other parts of Europe. The Stalk is green and weak: the Leaves are of a fine strong green with a tinge of bluish. The Flowers are of a delicate white, and stand singly at the tops of the Branches.

## 8. OVAL-LEAVED CORN MARYGOLD.

Plate 45. Fig. 8.

Character of the Species.

*Chrysanthemum Indicum.*

The Leaves are oval; but deeply waved, and sometimes cut in on the edges.

Fig. 8. *ab.*

THIS is a native of Ceylon: but bears the air in our open ground, and by Culture becomes very beautiful; the Flower growing double, and the Leaves more waved and more divided; inasmuch, as in some Plants to resemble those of our common Hawthorn. In this state also their edges become hard, and the Points of the Indentings prickly. The Leaves are a glossy bluish green: the Stalks are yellowish: the Flowers are yellow, in the state of Nature. They are not large, but of a very good colour; but by Culture they are rendered bigger, double, quilled, and waved in the same manner as the Tagetes and the Daisy.

## 9. WEDGE-LEAVD CORN MARYGOLD.

Plate 45. Fig. 9.

Character of the Species

*Chrysanthemum arcticum.*

The Leaves are broadest at the end, and cut there into deep divisions, growing smaller all the way down to the Base.

Fig. 9. a.

THIS is a Perennial, a weak Plant, native of North-America, and flowers in September. The Leaves are fleshy, and of a bluish green; the Stalks trail on the ground, and are reddish: the Flower terminates them and their several Branches. They stand on hairy Footstalks, and are large and of a beautiful yellow.

## 10. GLAUCCUS CORN MARYGOLD.

Plate 46. Fig. 10.

Character of the Species.

*Chrysanthemum segetum.*

The Leaves are deeply jagged, and embrace the Stalk at their base.

Fig. 10. a b.

THIS is an Annual, extremely common in our Corn-fields; and, though a troublesome one to the farmer, is a very handsome Plant. It is two feet high; the Stalks and Leaves are of a remarkable blue green. The Flowers are large and gold yellow: it blows in August. This Plant by Culture may be rendered double, and has a very good appearance.

## 11. MULTIFID CORN MARYGOLD.

Plate 46. Fig. 11.

Character of the Species.

*Chrysanthemum coronarium.*

The Leaves are pinnatifid, and cut into numerous Segments which grow broad at the end.

Fig. 11. a b.

THIS is an Annual, native of Crete and Sicily, and has very long been cultivated in our gardens, under the name of Candy Corn-Marygold.

CORN MARYGOLD.

Pl. 43.



*Palmated Corn Marygold.*



*Pinnatifid Corn Marygold.*



*Oral-leaved Corn Marygold.*



*Wedge-leaved Corn Marygold.*







# CORN MARYGOLD.

3

Pl. 46.



*Glaucous Corn. Marygold.*

*Multifid Corn. Marygold.*



*Clustery Corn. Marygold.*



*Prickly Corn. Marygold.*

*Twice winged Corn. Marygold.*

gold. The Stalk is grey; The Leaves are of a bluish green: the Flowers are large and of a very fine yellow: they easily become double by Culture.

## 12. CLUSTERY CORN MARYGOLD.

Plate 46. Fig. 12.

Character of the Species.

*Chrysanthemum corymbosum.*

The Leaves are winged and jagged; the Flowers crown the Stalk in a broad cluster.

Fig. 12. *ab.*

THIS is a Perennial, native of Germany and Switzerland; a tall robust Plant, flowering late in Autumn. The Stalk is often crimson; the Leaves are of a fresh and fine green: the Flowers of a strong yellow.

## 13. TWICE-WINGED CORN MARYGOLD.

Plate 46. Fig. 13.

Character of the Species.

*Chrysanthemum bipinnatum*

The Leaves are hairy; winged; and the divisions winged and cut again.

Fig. 13. *ab.*

THIS is a Perennial, native of Siberia; a robust Plant, flowering at the latter end of Autumn. The Stalk is brownish: the Leaves are of a deep dusky green; and the Flowers of a strong yellow.

## 14. PRICKLY CORN MARYGOLD.

Plate 46. Fig. 14.

Character of the Species.

*Chrysanthemum flocculosum.*

The Leaves are edged with a kind of weak Prickles.

Fig. 14. *a.*

THIS is an Annual, native of Africa; a singular and not inclegant Plant. The Stalk is a foot and a half high, and of a pale green; the Leaves are of a fine deep, but clear green; and the Flowers have slight Rays, and a yellow large Disk. Often the Rays are wanting, either in part, or entirely. In this state MORISON and ALPINUS have described it: and it will have a place also under our next Class.

GE -

## G E N U S V.

## T R I D A X.

Character of the Genus.

The Cup is cylindric: the Scales are similar, erect, egg'd, and sharp pointed.

Plate 47. *a b*.

Of this Genus we know only a single Species.

## I. DECUMBENT TRIDAX.

Plate 47 Fig. 1.

Character of the Species.

*Tridax procumbens*

The Stalk leans, and the Leaves stand in pairs.

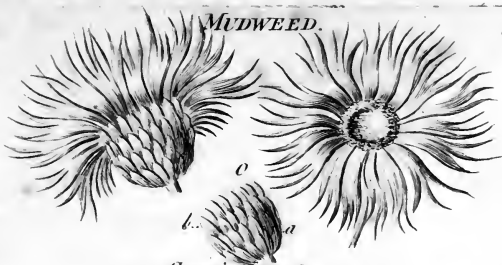
Fig. 1. *a b*.

THIS is a Perennial, a small but a very delicate and singular Plant, native of Vera Cruz. It flowers in August. The Root creeps, and the Stalk, as it first grows from it, lies upon the ground. The Leaves are of a very fine green, but often tinged with brown. The Stalk seldom rises to more than a foot high, and supports only a single Flower: but this is very beautiful; it is of the Aster form, but of the fine Orange colour of our deepest Marygolds. Its growth is particular: its Footstalk rises from the top of the main stem: yet is not its proper termination, though it appears so. It grows from the bosom of one of the upper pair of Leaves, the Stalk terminating in a Bud by its side. As the Flower fades, this Bud grows, and gives the Plant another aspect. This is represented in the two Stems, Fig. 1. No. 1 expressing the Plant when the Flower first opens, and only a Bud is seen by it, No. 2. When the Flower is faded, and the Shoot is risen to some length.

G E N U S

MUDWEED.

Pl. 47.

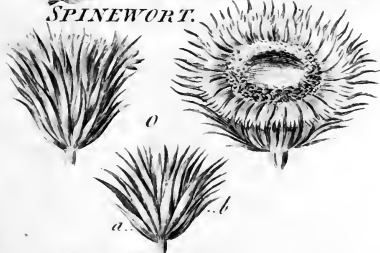


Generic Character.



Decumbent Mudweed?

SPINEWORT.



Generic Character.



Hairy Spinewort?



## G E N U S VI.

## G O R T E R A.

Character of the Genus.

The Scales of the Cup terminate in prickly Points.

Plate 47. *o a a.*

THIS also is a Genus, of which we know but one Species.

## H A I R Y G O R T E R A.

Character of the Species.

*Gortera perforata.*

The Leaves are lanced and obtuse: the Cup has long Spines.

THIS is a Plant altogether singular, and demanding of right a new name and new place, in the arrangement of the radiated kinds. The Stalk is round, hairy, upright, tinged with brown, and divided into numerous Branches. The Leaves are lanced, very hairy, obtuse, and of a brown green. The Flowers grow at the tops of the Branches; and the first of them naturally appears on the summit of the main Stalk: but young Branches shoot from this, which exceed it in height; and thus the whole head becomes bushy. The Flowers are yellow, and the Spines of the Cup which surround them are brown.

## G E N U S VII.

## A S T E R.

Character of the Genus.

The Scales are of a leafy Substance: and those of the lowest range throw their Points outward

Plate 48. *o a b.*

THE Asters are so numerous, that it will be useful to subdivide them under two arrangements, according to certain absolute and obvious distinctions.

VOL. II.

O o

SUCH

SUCH may be found in the relation or distinction between the Scales of the Cup and the Leaves of the Plant.

IN Some Species the Scales of the Cup are continued down the Footstalks of the Flower, but in a state of degradation into a more perfectly leafy matter, and an enlarged form; till they meet the uppermost Leaves of the Stalk, and are undistinguishable from them. These we shall call **ASTERS WITH DEGRADATING SCALES**.

IN others the Scales of the Cup are kept perfectly distinct from the Leaves of the Plant. These we shall call **ASTERS WITH THEIR LEAVES AND CUPS DISTINCT**.

## A S T E R S.

### ARRANGEMENT I.

Those with degradating Scales.

#### 1. DROOPING-LEAV'D ASTER.

Plate 48. Fig. 1.

Character of the Species.

After *grandiflorus*.

The Leaves are lanced and hang drooping.

THIS is native of North-America, a very handsome Plant of a yard high; a Perennial, flowering from September till Winter checks it. The Leaves are rough, and of a brownish green; the Stalk is brown, and often blotched with crimson. The Flowers are of a delicate pale violet colour: and the Points of the Scales of their Cups are usually brown.

#### 2. CURLED-LEAV'D ASTER.

Plate 48. Fig. 2.

Character of the Species.

After *reflexus*.

The Leaves are oval, edged with brown, and curl'd back.

Fig. 2. a.

THIS is a Specious *Æthiopian Plant*, which covers the burnt sands in many Places, with its spreading weak, though almost woody branches, and shews its gorgeous Flowers innumerable to the fierce

Sun



ASTER.

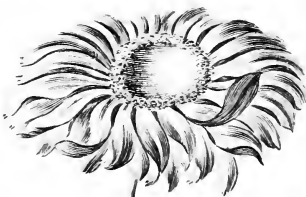
Pl. 40.



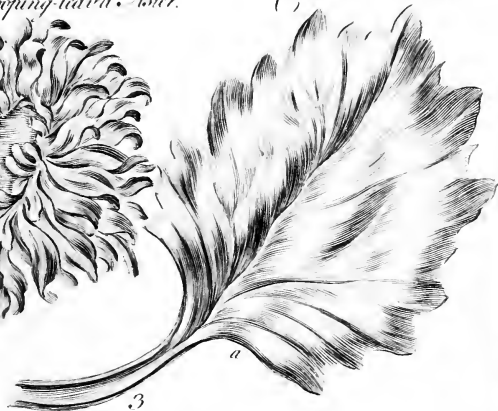
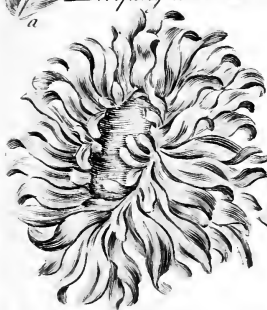
Generic Character.



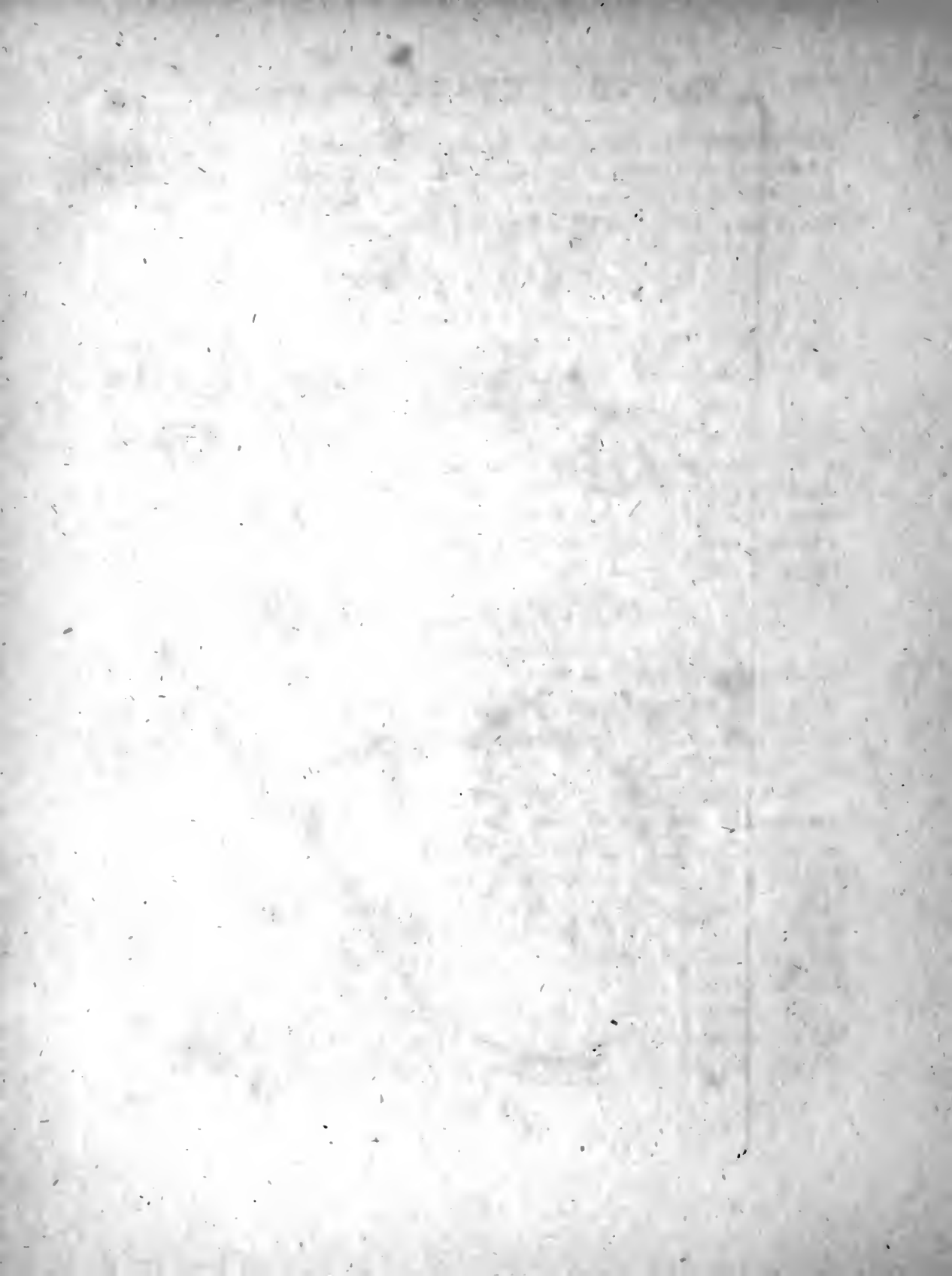
1  
Drooping-leaved Aster.



2  
Curl-leaved Aster.



3  
China Aster



Sun without the least loss of lustre. It grows to a yard high. The Leaves are of a dusky green; they curl down, and are edged with a brown hard divided membrane. Nothing can exceed the Flowers; their size is vast, and their colour a deep purple.

### 3. CHINA ASTER.

Plate 48 Fig. 3.

Character of the Species

After *Chinenfis*.

The Leaves are oval, angulated, indented, and placed on Footstalks.

Fig. 3. *a*.

THIS is an Annual, native of China; and, tho' a low Plant, is superior to all the others in the size and beauty of the Flower. It blows in August, and will last till November. The Leaves are of a fresh green. The Flowers naturally crimson; but often white or purple.

### 4. UMBRELLA'D ASTER.

Plate 49. Fig. 4.

Character of the Species.

After *fedi foliis*.

The Leaves are linear and fleshy; the Flowers grow in the umbrella form.

Fig. 4. *ab*.

THIS is an European, a Perennial; a Plant of great singularity and beauty: It is frequent by the rivers and lakes in Germany, and on damp shaded ground in the South of France: with us, it will live in open ground, in almost any soil: but we should give it a damp bed, not too open to the South Sun. In this kind of ground with me at Bayswater its Umbel spreads to half a yard in breadth, and appears very elegant and particular among the best of the American and Indian Asters.

The Plant is two feet and a half high. The Stem is simple, upright, firm, and brown. The Leaves stand thick; they are of a fleshy substance, and fresh green colour: they are linear, or at the utmost, have

have very little swelling in the middle, and are perfectly undivided at the edge. The Flowers are large, and of a very delicate crimson. It blows from August to October.

### 5. SCATTERY ASTER.

Plate 49. Fig. 5.

Character of the Species.

After lævis.

The Leaves are smooth, lanced, and serrated: the Flowers stand at distances.

Fig. 5. *a b*.

THIS is a Perennial, native of North-America, where Asters are most numerous; and is absolutely distinct in its habit from them all. The Plant is near a yard high: its Stalk is slender, but very firm, angulated, and of a dusky green. The Leaves have no Footstalks: their colour is a deep but not obscure green: they stand singly, and at considerable distances on the Stalk. They are perfectly smooth. The Flowers are large, and of a very delicate colour, between crimson and violet. They stand in a spreading, loose, irregular cluster.

### 6. RED-DISK'D ASTER.

Plate 49. Fig. 6.

Character of the Species.

After mutabilis.

The Leaves are lanced: the Cup spreads very much at the Base, and the Disk when full blown, is crimson.

Fig. 1. *a b*.

This is a Perennial, a North-American, and a very beautiful kind. The Plant is five feet high; the Stalk is firm, brown, and divided into innumerable Branches. The Leaves are of a very deep green, and the young shoots are pale. The Flowers stand in vast abundance and beauty on the top of all the Branches. They are moderately large, and their natural colour is a deep violet blue; but they vary, not only from Culture, but on the wild Plant, to pale blue, flesh coloured, and white. In general, the opener the ground where the Plant grows, the deeper is the colour of its Flowers: and this is the Case also in the others.

### 7. CLUS-

ASTER.

2

M 49.



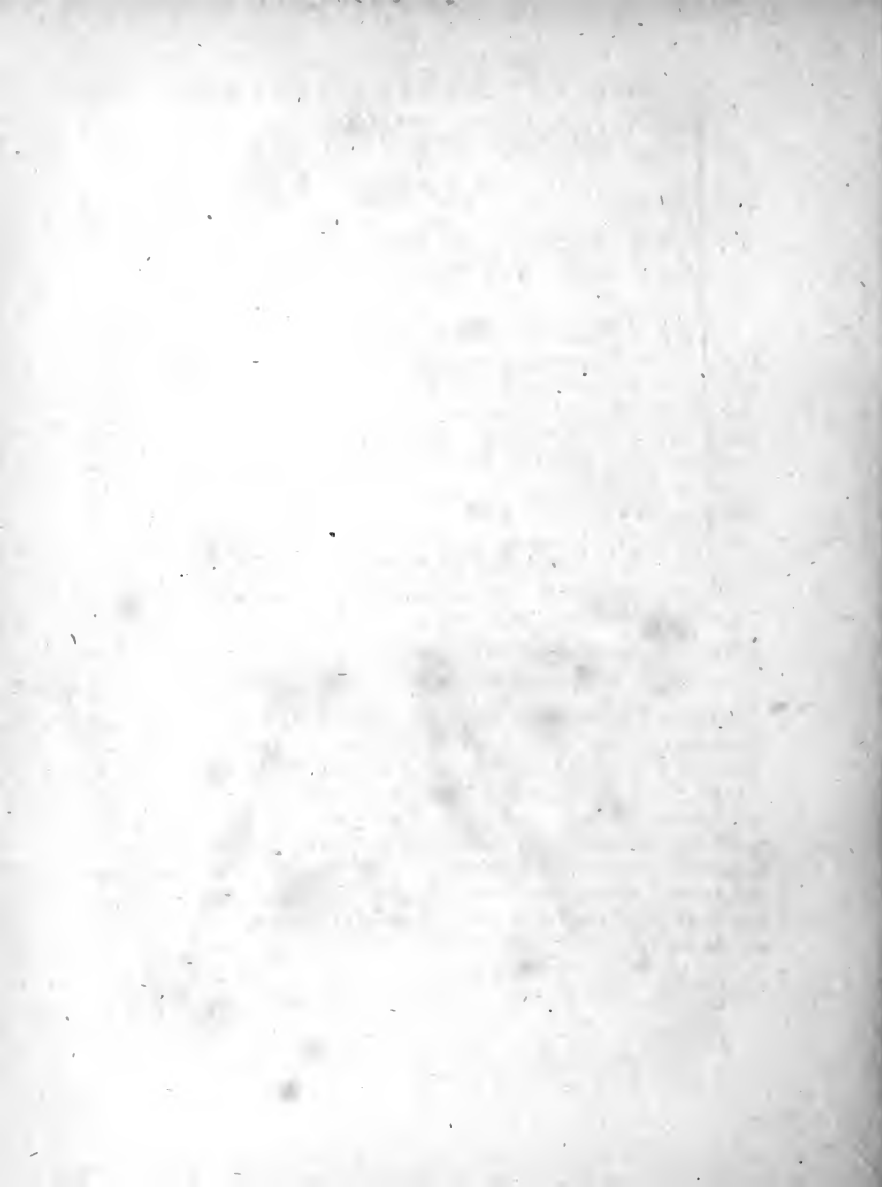
*Umbrellaloid Aster.*



*Saxifrage Aster.*



*Red-disked Aster.*



## 7. CLUSTERY ASTER.

Plate 50. Fig. 7.

Character of the Species.

After Tradescanti.

The Leaves are oblong, dented, and swelling a little in the middle. The Flowers form a wild Cluster.

Fig. 6. a'

THIS is a Perennial, native of North-America, and was one of the first brought over into our gardens. The Stalk is thick, brown, and welted with fine small leafy Ridges. The Leaves are of a deep and unpleasant green; the Branches are numerous, very irregularly disposed, and thick set with small Leaves. The Flowers stand on the Divisions of the upper Branches; which are almost innumerable, and form a vast cluster: they begin to blow at the latter end of September, and last till the frost.

## 8. BROAD-HEADED ASTER.

Plate 50. Fig. 8.

Character of the Species.

After Novi Belgii.

The Leaves are broad, lanced, and notched. The Flowers form a broad open Head.

THIS is a Perennial, a native of Virginia, and is not one of the least elegant of the Aster family. It loves a damp soil, and flowers from the Beginning of September to Winter. The Leaves are of a deep green, broad, lanced, and serrated about the middle; they adhere to the Stalks by broad Bases, having no Footstalks. The Stalk is dusky, and toward the bottom brown. The top is divided into a multitude of spreading Branches; and on each of all their divisions stands one flower, and no more: they are therefore kept at a distance, and naturally spread into a broad head. They are large, and their colour is a pale violet with a tinge of crimson.

## 9. LONG-SPIKED ASTER.

Plate 50. Fig. 9.

Character of the Species.

After *tenui folius*.

The Leaves are linear, thin, and undivided, The Flowers stand in long Spikes.

Fig. 9. *a b*.

THIS is another of the vast family of North-American perennial Asters. It is a native of the damp thickets of New-England, and flowers from September to the beginning of November. Its Aspect is somewhat singular among the Asters; and the colour of its Flowers is different from most, and very Pretty; they are of a pearly hue, with some fine Blue among it, and this principally toward the points of the Rays. The Plant is not more than two feet and a half high. The Stalks are slender, but firm and tough, and their colour is a faint green. The Leaves are of a fine green; they are smooth, glossy, and have scarce any thickness. The Branches are not numerous; they have a handsome number of Flowers growing in long single series on them: and the Scales of the Cup in a very evident manner run down their Footstalks and meet the Leaves.

## 10. WAVY LEAVED ASTER.

Plate 51. Fig. 10.

Character of the Species.

After *undulatus*.

The Leaves are wavy, hearted, and lanced: the Flowers rise in a lofty Spike.

Fig. 10. *a b*.

THIS is a native of North-America, a tall perennial Plant, with innumerable Flowers, which blow in September. The Stalk is brown, and a little ridg'd: the Leaves have no Footstalks: they are of a deep green, and beautifully waved, and folded at the edges. The Flowers are small; their colour is a delicate blue. They would be less conspicuous by their size than those of most of the Asters: but the amazing number of them makes ample amends for that defect



ASTER.

3

Pl. 50.



Clustered Aster.

a



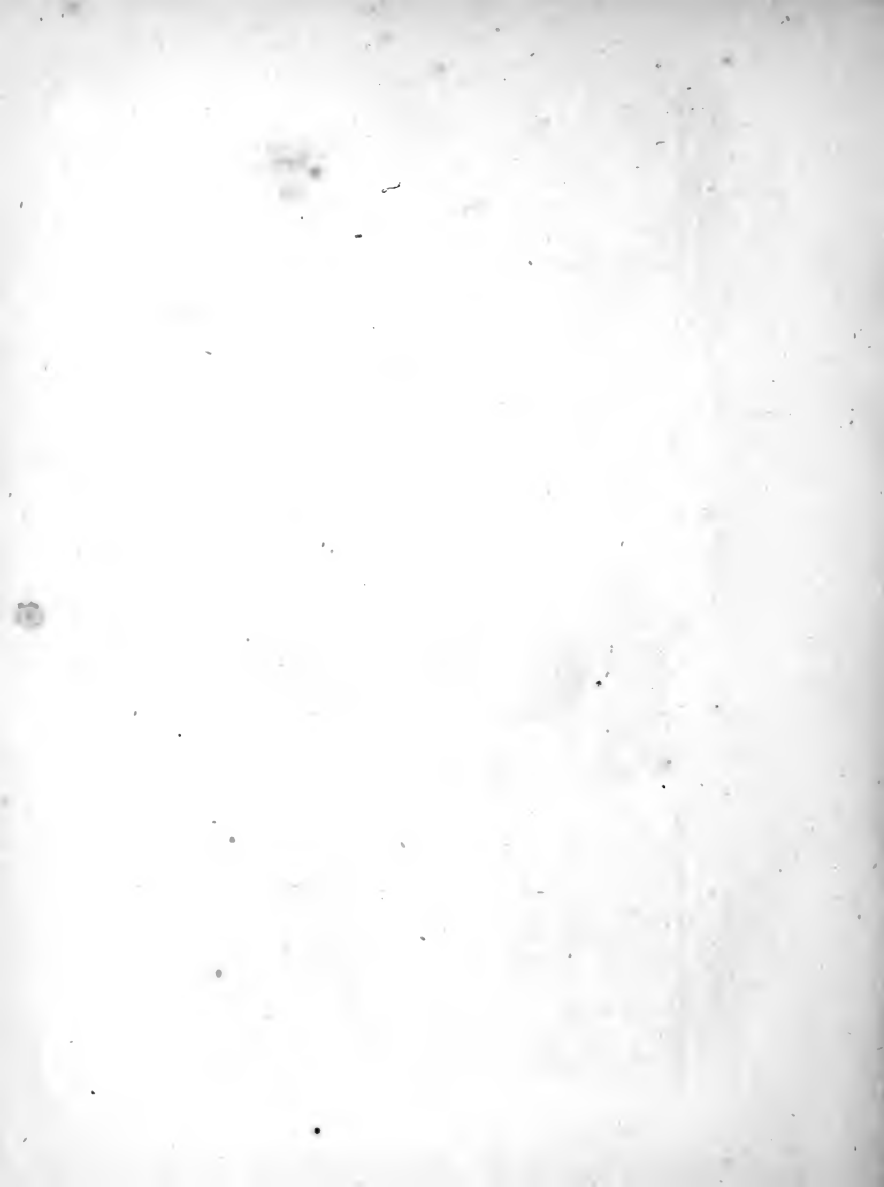
a. 9

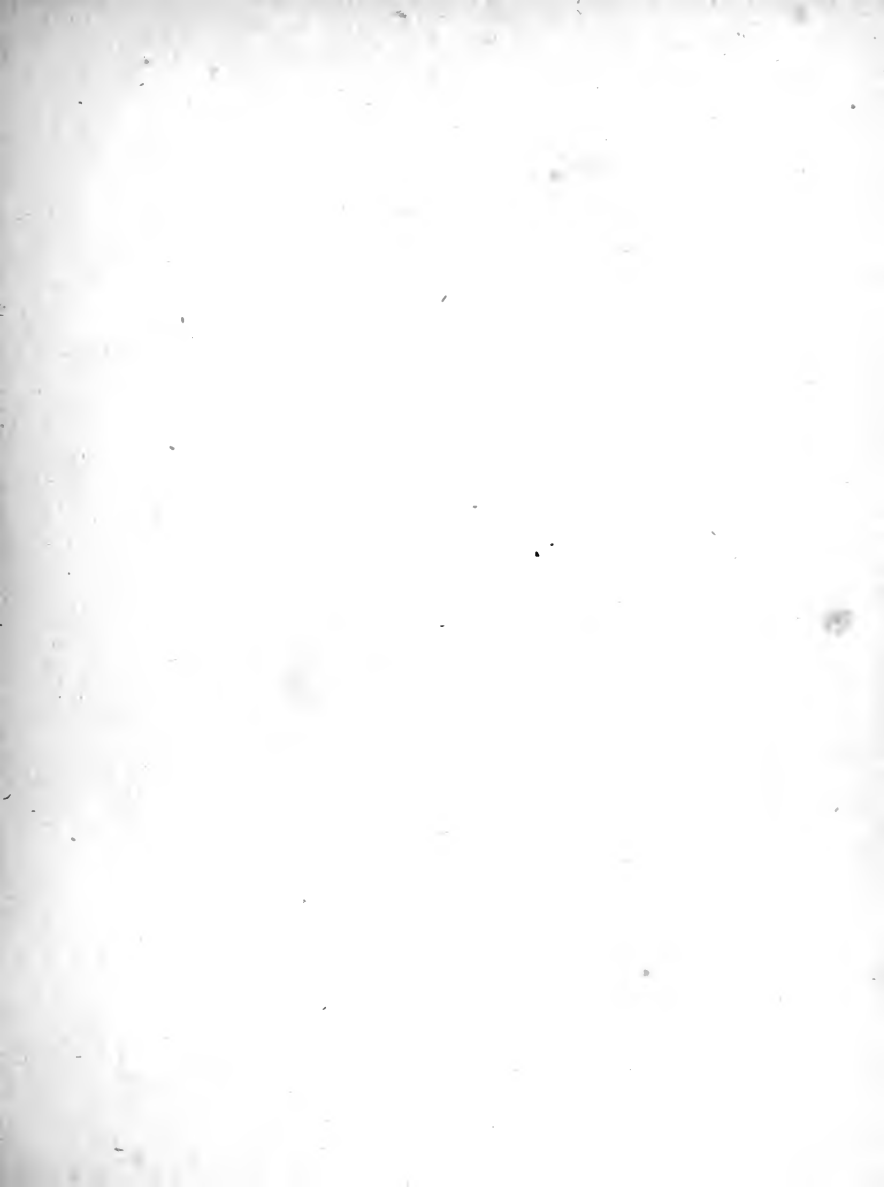
Long-Spiked Aster.



a. 8

Broad-headed Aster.





ASTER.

4

Pl: 51.



Wavy-leaved Aster.



Fleecy Aster.



Hairy Aster.

fect. They grow in a kind of tower, and cover the whole top of the Plant so perfectly, as at a distance, to resemble one vast mass of some blue light matter.

## 11. HAIRY ASTER.

Plate 51. Fig. 11.

Character of the Species.

After Nove Angliæ.

The Leaves are lanced, hairy, and half embrace the Stalk.

Fig. 11. a.

THIS is a tall and very majestic Plant, a perennal, and native, as most of the others, of North-America. The Stalk is brown, rugged, and five feet high, or more. The Leaves are of a pale but brownish green, and hairy: the Flowers are very large and beautiful; they are blue; they stand loose on the tops of the Shoots and branches, and make a very great appearance, at the late time of their blowing, which is hardly till October.

## 12. HEATHY ASTER.

Plate 51. Fig. 12.

Character of the Species.

After Ericoides.

The Flowers rise in long Clusters: the Leaves are linear, and undivided.

Fig. 12. a b.

THIS is another of the American Asters, a Perennial, flowering with us in vast profusion late in Autumn. The Stalk is upright, firm, reddish, and four feet high. The Leaves are of a delicate green, but often tinged with brown. The Flowers are small and stand close in long Spikes; their colour when they stand in the free air is singular, it is crimson without any tinge of blue.

## 13. RACEMOSE ASTER.

Plate 52. Fig. 13.

Character of the Species.

After concolor.

The Stalk is undivided; the Flowers stand in a kind of a Spike: the Leaves are oval, and hard to the touch.

Fig. 13. a b.

THIS very singular Aster is of the common country of the rest, the North-American continent; and it flowers with the earliest toward the

the end of August. It seems as if Nature, sporting in this vast family, intended to make the regular gradation between the amazingly divided and branched Stalks of some of the preceding kinds; and the very simple structure of the following: Many of those bear two hundred Flowers, upon divers leafed boughs that has its simple Stalk crowned only with one. This Species seems the Link connecting those extremes, having without any division, yet a considerable number of Flowers.

THE Stalk is brown, about two feet high, and usually undivided, and destitute of all Branches. The Leaves are of a dusky brownish green, hard, and harsh to the touch. The Flowers are crimson, with scarce any tinge of blue; and often a cast appears upon the Disk, but not always.

#### 14. ONE FLOWERED ASTER.

Plate 52. Fig. 14.

Character of the Species.

After *rigidus*.

One Flower terminates the Stalk; the Leaves are linear and harsh.

Fig. 14. *a b*.

THIS is of the same origin with the rest, a North-American, and most frequent at the back of our settlements in Virginia, where it rises among thickets, and flowers all the latter end of Summer. The Stalk is brown and weak, yet hard, and in a manner woody: the Leaves are brownish, harsh, and hard to the touch. One vast crimson Flower grows on the summit of the Stalk; and its Cup is remarkably thick.

#### 15. SUBLINEAR ASTER.

Plate 52. Fig. 15.

Character of the Species.

After *Linariæ foliis*.

The Leaves are nearly linear, but pointed; the Flowers are few.

Fig. 15. *a b*.

THIS is a native of Pennsylvania and Virginia; a very beautiful Species, flowering toward the beginning of October. The Stalk is hard,

1. ASTER.

Pl. 52.

5



13 a

*Pycnocephalus. Aster.*



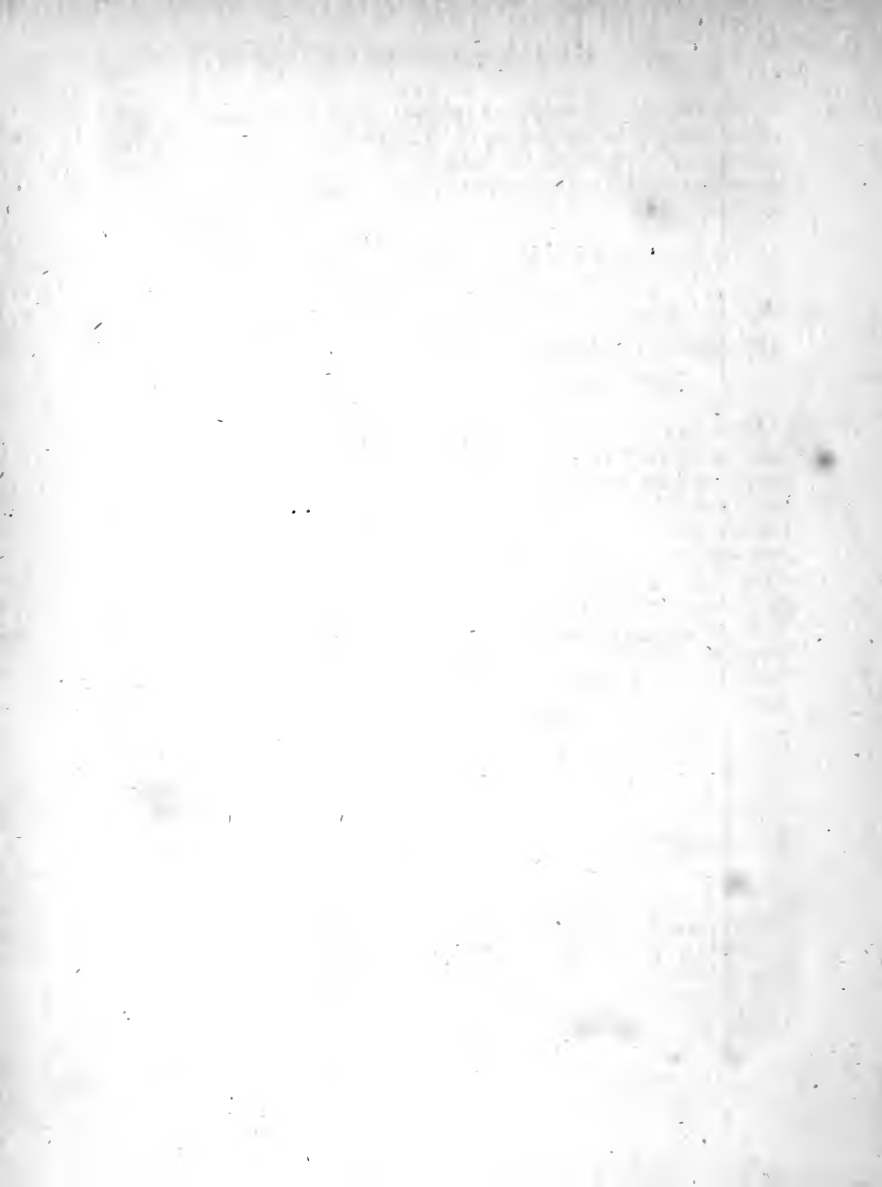
14 a

*One flowered Aster.*



15 a

*Sublinear. Aster.*





hard and brown, or sometimes reddish. The Leaves are of a dusky green, rough, and sharp pointed. The Flowers are of a delicate deep crimson; and the Scales of their Cups in a very apparent manner degenerate on the lower part into Leaves, and run down the Footstalks.

## 16. INDIAN ASTER.

Plate 53. Fig. 16.

Character of the Species.

After Indicus.

The Branches spread in a wild scattered manner: the Leaves are oblong, oval, and ferrated.

Fig. 16. *a b*.

THIS is a Biennial, native of China, a Plant distinguished by its habit and general appearance from all the others. The Stalk is naturally crimson: the Leaves are of a fine fresh green, but the lower ones intirely, and those upon the Stalk at their Bases, are often tinged with its glowing red. The Flowers are moderately large, and of a very delicate colour, mixt of the high crimson of the Stalk, and a right violet blue; sometimes they are pale, and on some Plants white: they blow in August. The lowest Scales of the Cup are in this as in the preceding remarkably leafy, and they degenerate into absolute Leaves of a lanced form; which, as they grow lower down the Footstalks become longer, and gradually assume the perfect form of the Leaves.

## 17. FLAXEY ASTER.

Plate 53. Fig. 17.

Character of the Species.

After linifolius.

The Leaves are linear and soft; the Stalk spreads into a vast branchy even head.

Fig. 17. *a b*.

THIS is a low and simple, but yet far from an inelegant Species. It is a native of North-America; and flowers early in September: the Plant is two feet high: the Stalk is firm, brown at the bottom, but green toward the top. It has scarce any branches near the ground;

but toward the top sends out innumerable ascendant boughs, which all terminating nearly at the same height, make a vast bushy head. The Flowers are blue, with a tinge of crimson.

### 18. SHORT-RAY'D ASTER.

Plate 53. Fig. 18.

Character of the Species.

After miser.

The Flower is oval; for the Disk rises high, and the Rays do not equal it in length.

Fig. 18. *a*.

THIS is a very poor Aster, a low Plant, with the smallest and least handsome Flowers of all the Genus. It is seldom two feet high: the Leaves are dusky, oblong, narrow, and hang drooping. The Stalk is altogether green. The Flowers are white, with a yellow Disk. The Rays are few, short and poor. It blows in September.

### 19. BUSHY ASTER.

Plate 54. Fig. 19.

Character of the Species.

After dumosus.

The Leaves are linear and undivided. The Stalk branches toward the head, into a multitude of very slender striated twigs. The Disk of the Flower is small.

Fig. 19. *a b c*.

THIS is a native of Virginia, a well looking Plant, but not conspicuous for its Flowers. It is a Perennial, four feet high, with fine fresh green Leaves, and innumerable Branches spreading into a good form, and well covered; but the Flowers, which appear late, are only moderately large, and are white. The main Stem is brown; the Branches toward the top are green, but ridged with brown; the Cups of the Flowers have a degradation of Scales, which run from them all the way down the twigs which carry them; they are linear toward the tops, but by degrees they get some breadth, as they descend, till where they meet the absolute Leaves of the Stalks, they have their proper lanced form.

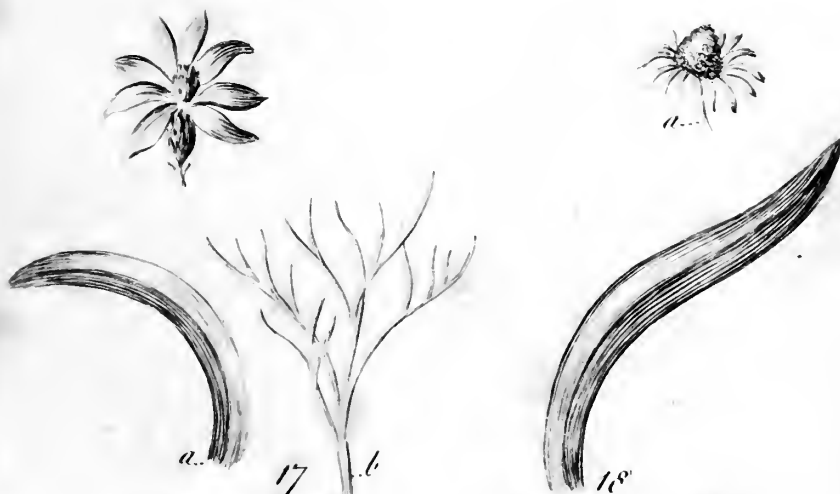
### 20. HEHRT-

• *ASTER.*  
6

Pl. 53.



16  
*Indian Aster.*



17  
*Flaxey Aster.*

18  
*Short-rayed Aster.*





*ASTER.*

7

Pl. 54.



19



a

*Bushy Aster.*

c



b

21



a

*Pyrenaean Aster.*



b



a

20

*Heart-leaved Aster.*

## 20. HEART-LEAV'D ASTER.

Plate 54. Fig. 20.

Character of the Species.

After Cordifolius

The Leaves are Heart-shaped, and placed on Footstalks : they are serrated and smooth. The Stalk divides into a bushy head.

Fig. 20. *a b*

THIS, though a native of North America, is common also to Tartary and the mountains of Tibet, whence we have our Rhubarb. It is a Perennial, and flowers with the rest late in Autumn. The Plant is seldom more than two feet high : the Stalk is weak and green : the Leaves are of a strong and very fine green. The Flowers are very numerous, and of a delicate blue, with some cast of crimson.

## 21. PYRENÆAN ASTER.

Plate 54. Fig. 21.

Character of the Species.

After Italicus.

The Leaves are oval and obtuse ; the Scales of the Cup are small.

Fig. 21. *a b*.

THIS is a Perennial an European, native of the hills in Italy, and throughout that part of Europe. It flowers earlier than the American or Indian kind. Often in the very beginning of August. The Plant is two feet high : the Leaves are of a greyish green : the Flowers stand at the tops of the Stalks in a kind of flat tuft, and are large, and of a very delicate blue.

## A S T E R S.

## THE SECOND ARRANGEMENT.

Those with the Leaves and Cups perfectly separate and distinct.

## 22. WOOLLY ASTER.

Plate 55. Fig. 22.

Character of the Species.

After Alpinus,

The Leaves are lanced and covered with a harsh but woolly matter. One Flower only terminates the Stalk.

Fig. 22. *ab.*

THIS is a native of the European hills; those of Germany, the mountains of Switzerland, and the Alps and Pyreneans, toward their bottoms, afford it in abundance. It is a Perennial, and flowers in August. The Stalk is weak and hairy: its colour is a greyish green, and it rises naturally without branches: the Leaves also are greyish, woolly, and yet harsh to the touch. One Flower crowns the summit of the Stalk: and this is very large and of a cœlestial blue. The radical Leaves are broad and short; those on the Stalk are longer.

## 23. DOTTED ASTER.

Plate 55. Fig. 23.

Character of the Species.

After fruticosus.

The Leaves are spotted, narrow, and placed in seeming clusters.

Fig. 23. *ab.*

THIS is a singular, rather than an elegant Plant: it is a native of the Cape of Good Hope; and hangs there from the clefts of rocks in a wild dangling manner in vast profusion. It is a Perennial, and its Stalk is so hard toward the Base that it approaches the nature of a Shrub. This part of the Stem is brown; the tender part is green: the







*Woolly Aster.*



*Siberian Aster.*



*Duthol Aster.*

the Leaves are of a dusky green, spotted very delicately with a strong brown. They rise in pairs: but the opening Buds in their bosom give them a clustery appearance on the Plant. The Flowers are white: they blow in July.

#### 24. SIBERIAN ASTER.

Plate 55. Fig. 24.

Character of the Species.

After Sibericus.

The Leaves have high Ribs, and are notched toward the ends. The Footstalks of the Flowers are woolly.

Fig. 24. *a b*.

THIS is a native of Siberia, a Perennial; a singular, and not unhandfome Plant. The Stalk is brown, rough toward the bottom, and striated on the upper part. The Leaves are of a deep green, and are somewhat rough and uneven on the surface. The Flowers are large and of a pale blue: they stand singly on their naked Footstalks, and make a kind of Umbel at the summit of the Plant. They blow in September.

#### 25. SEA-SIDE ASTER.

Plate 55. Fig. 25.

Character of the Species.

After Tripolium Dictus.

The Leaves are fleshy, lanced, undivided, and smooth; the Branches rise irregularly, and the Flowers are clustered at the ends.

Fig 26. *a b*.

THIS is a Perennial, an European Aster: singular in its Place of growth, on ground wet with salt water; and is the only Species we have wild in our country. Tho' it requires land moistened with salt water, yet a very small portion of the salt will answer. Wherever rivers are salt at the high tides, this Plant will grow upon their banks: we see it by the Thames.

THE Plant is four feet high; the Stalk is often red: the Leaves are of a pale green: the Flowers are of a delicate blue, with some slight tinct of crimson.

## 26. ATTIC ASTER.

Plate 56. Fig. 26.

Character of the Species

After *amellus dictus*.

The Leaves are rough, three-rib'd, and half embrace the Stalk. The Cups are remarkably loose in their texture.

Fig. 26. *a b*.

THIS is a perennial European Aster, frequent on the barren hills of the southern part of the Continent. It flowers in August. The Stalk is firm, erect, two feet high, and often tinged with brown, or with a dusky red: the Leaves are of a faint green: they have three strong Ribs, and their surface is rough. The Flowers are large and blue: they grow in bunches, or roundish clusters at the top of the Stalk and Branches.

## 27. WIDE-BRANCHED ASTER.

Plate 56. Fig. 27.

Character of the Species.

After *divaricatus*.

The Stalk divides into remote spreading Branches. The Leaves are oval, and serrated.

Fig. 27. *ab*.

THIS is an American, a spreading Plant; but of less beauty than many of the others. It is a Perennial, and Flowers in September with the rest. The Stalk is hard but weak: it grows to two feet and a half high. The Leaves are of a deep green; and they are smooth and glossy on the surface. The top Branches are green; but the lower part of the Stalk is brown; and the Flowers are large but white, with a yellow Disk; as is the case with almost all the blue or crimson ones.

## 28. CRIM-

. ASTER.

Pl. 36.



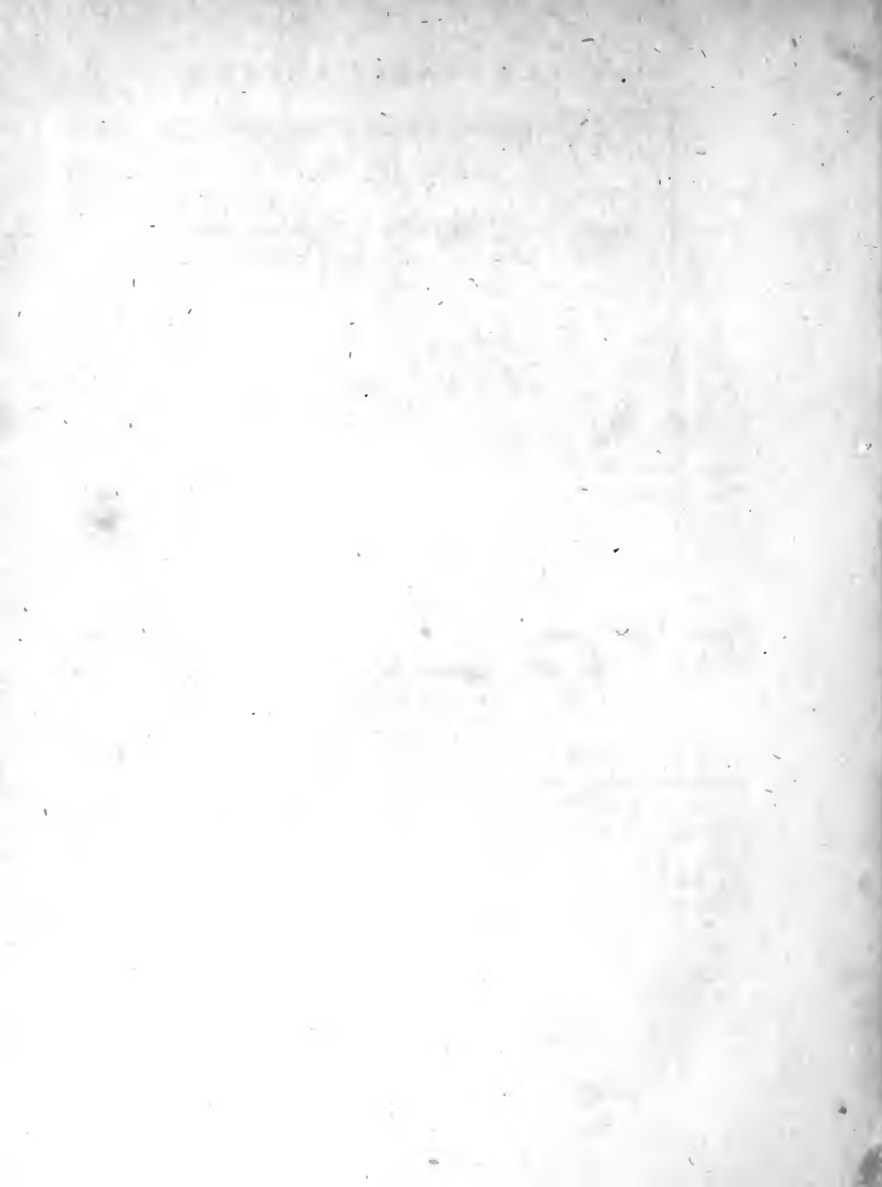
*Sea-side Aster.*



*Wild Branchid Aster.*



*Allie Aster.*



## 28. CRIMSON-STALKED ASTER.

Plate 57. Fig. 28.

Character of the Species.

After pinnicus

The Leaves are lanced, rugged, ferrated, and half embrace the Stalk: the Footstalks of the Flowers rise alternate, and seldom have more than one Flower

Fig. 28. *a b*.

THIS is a perennial also, native of North-America; a very fine and very singular Plant; whose Stalks have great elegance; and its appearance is therefore beautiful before it flowers. The Plant is five feet high: the Leaves are rugged, but of a fresh and strong green; and the Stalks are throughout of this lively crimson; which also stains often the lower Leaves, and even the Bases of the upper ones. The Flowers are moderately large and blue, with some light tinge of crimson.

## 29. ANNUAL LANCED ASTER.

Plate 57. Fig. 29.

Character of the Species.

After Annuus.

The Leaves are lanced and ferrated; the Stalk is spread out into Branches.

Fig. 29. *a b*.

THIS is a North-American, native of Canada; and is not an unhandsome Plant. It flowers in August, and differs from all the rest of the Asters of that country, in that it is an Annual; the Root perishing before winter. The Stalk is tolerably firm, and a yard high. The Leaves are of a pale, but fresh green: the bottom of the Stem is often brown or red, and the upper part green. The Flowers are white, with a yellow Disk.

## 30. SPRING

## 30. SPRING ASTER.

Plate 57. Fig. 30.

Character of the Species.

After Vernus.

There are scarce any Leaves upon the Stalk, and the few there are, are filmy and imperfect

Fig. 30. *ab*.

THIS is a Perennial, native of Virginia, a very singular Plant; differing in aspect, and in its time of flowering, from all others; and yet by every character a perfect Aster. The Leaves from the Root are of a delicate though not strong Green. The Stalks are hairy, weak, and divided into a few Branches: the filmy Leaves on them are very pale: the Flowers are white, but have a yellow Disk. It blows early in May, and in mild seasons sooner.

## G E N U S IX.

## C R O W N S E E D.

## A R C T O T I S.

Character of the Species.

The Cup has three Rows of dissimilar Scales; the lowest Range are awly, and stand loose; the second are oval; and the upper ones oblong and hollowed with round shining Points

Plate 58 *aaa*.

## 1. PINNATIFID CROWNSEED.

Plate 58. Fig. 1.

Character of the Species.

Arctotis trifida

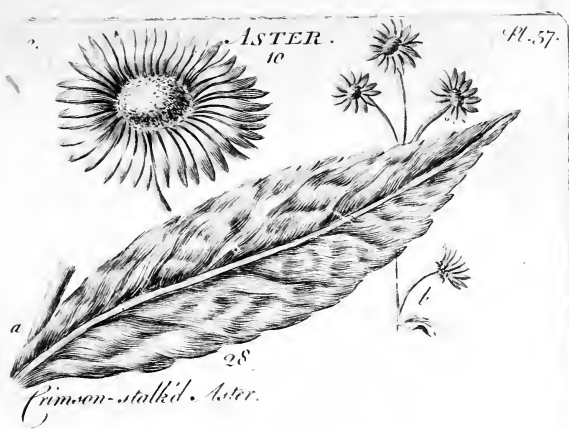
The Leaves are deeply pinnatifid: the Flower has about twenty Rays, which are deep cut into threes at the end.

Fig. 1. *ab*.

HIS is an Annual, native of the Cape of Good Hope; a very fine and elegant Plant. The Stalk is weak though thick: it is brown

on









CROWN-SEED.

Pl. 58.



Generic Character.



Pinnatifid Crown Seed.



Egg-leaved Crown Seed.

Linear Crown Seed.

Long jagged Crown Seed.

on the sunny side, and green on the other. The Leaves are hairy, and of a faint but somewhat dusky green on the upper side, and pale underneath. The Flower is large, and elegant : its colour yellow : the Rays are cut deep into threes. It flowers in June.

## 2. EGG-LEAF'D CROWNSEED.

Plate 58. Fig. 2.

Character of the Species.

*Arctotis Calendulacea.*

The Leaves are egg-shaped and indented, and have long Footstalks : the Rays are about twelve, and are scarce at all divided.

Fig. 2. *a b.*

THIS also is an Annual, native of Æthiopia, and flowers in July and August. The Stalk is pale : the Leaves are of a strong, but somewhat bluish green, and paler on the under than on the upper side. The Flower is of a pale Lemon colour, somewhat deeper on the outside than within : very large and handsome.

## 3. LONG-JAGGED CROWNSEED.

Plate 58. Fig. 3.

Character of the Species.

*Arctotis aspera.*

The Leaves are cut in the pinnatifid manner, but somewhat irregular ; with many long Segments, which are jagged again in the same way.

Fig. 3. *a b.*

THIS is a perennial, native of the Æthiopian sands, and flowers from June to October ; the Leaves are of a greyish Green, and rough. The Flowers are crimson on the outside, and of a Lemon colour within.

## 4. LINEAR CROWNSEED.

Plate 58. Fig. 4.

Character of the Species

*Arctotis Angustifolia.*

The Leaves are linear and lightly dented.

Fig. 4. *ab.*

THIS is a Perennial, native of the Cape of Good Hope, and flowers in September. The Leaves are of a deep green, and harsh to the touch. The Flowers are straw-coloured on the inside, and Violet-coloured on the outside. The Stalk is weak.

## G E N U S X.

## F L E A B A N E.

## C O N Y Z A.

Character of the Genus.

The Cup is rounded : the Scales of it are sharp-pointed, and spread out at their Points.

Plate 59. *o ab.*

## 1. REFLEX FLEABANE.

Plate 59. Fig. 1.

Character of the Species.

*Conyza linifolia.*

The Leaves are lanced but narrow ; the Rays of the Flower bend back.

Fig. 1. *ab.*

THIS is a Perennial, native of North-America, and flowers in September. The Stalk is brown ; the Leaves are of a dusky green ; rough and rugged on the surface, and hard to the touch. The Flowers are very numerous, and small : they are white, with a yellow Disk, and the Rays turn naturally back, in the manner of many of the Asters when they are fading.

## 2. BROAD-

## 2. BROAD-LEAV'D FLEABANE.

Plate 59. Fig. 2.

Character of the Species.

*Conyza afteroides*

The Leaves are lanced, but broad and ferrated: the Rays stand strait.

Fig. 2. *ab*.

THIS is a Perennial also, native of the same part of the World with the preceding, and most plentiful of all, in Canada. It flowers at the end of August. The Stalk is firm, erect, rugged, and brown. The Leaves are of a brownish green, and have a rough, uneven aspect: the Flowers grow at the tops of the Branches, and are large and white: their Rays are short and narrow.

## 3. AMPLEXICAUL FLEABANE.

Plate 59. Fig. 3.

Character of the Species.

*Conyza bifrons*.

The Leaves are egg'd: but oblong, and they embrace the Stalk at the base.

Fig. 3. *a*

THIS is a native of the European mountains; the Pyrenæan and Swiss hills; delighting in the thickets with moist ground at their bottoms. The Leaves are oblong, broad, and approaching to the egg'd shape: they are of a pale yellowish green, and are rugged on the surface. The Flowers are smaller and less numerous than in the preceding kinds. It is a Perennial, and blows in July.

IT is said there is a naked kind of this in Canada.

## 4. WOOLLY

## 4. WOOLLY FLEABANE.

Plate 59. Fig. 4.

Character of the Species.

*Conyza bifoliata.*

The Leaves are woolly, oval, and dented ; and two grow upon each Flowerstalk.

Fig. 4. *aa.*

THIS is a Perennial, native of China and the East-Indies ; and flowers in June. The Stalk is erect, rugged, and stained with crimson : the Leaves are white and woolly : the Flowers are numerous, small, and whitish.

## 5. WREATHED FLEABANE.

Plate 60. Fig. 5.

Character of the Species.

*Conyza tortuosa.*

The Stalk is woody and wreathed : the Flowers are placed in drooping clusters.

Fig. 5. *ab.*

THIS is a native of Vera Cruz, and of the island of Madagascar ; a perennial Plant, with a firm woody Stalk, though not deserving the name of a shrub. It flowers in June ; the bark is of a dusky brown : the Leaves are of a fresh and lively green ; the Flowers are small ; but they hang from the sides of the Branches in considerable bunches ; and, partly from their quantity, partly from their pendent form, they make a pretty appearance.

## 6. CLUSTERY FLEABANE.

Plate 60 Fig. 6.

Character of the Species.

*Conyza candida.*

The Leaves stand singly : they are oval and woolly. The Flowers are placed in clusters.

Fig. 6. *ab.*

THIS is a Perennial, native of Crete and other of the neighbouring islands. It flowers in June. The Stalks are solid, woody, and of a rugged aspect : they spread every way from the Root ; but are seldom



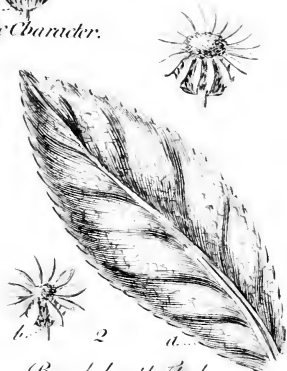
3.

## FLEA - BANE

Pl. 59



Generic Character.

*Reflex Fleabane.**Broad-leaved Fleabane.**American Fleabane.**Woolly Fleabane?*





FLEABANE.

2

Pl. 60.



Wreathed Fleabane.

Clusters Fleabane.



Grey Fleabane.



Three flower'd Fleabane.

Scabrous Fleabane?

seldom more than a foot long. The Flowers are small, and of a faint yellow : but the Leaves are very beautifully silvery.

### 7. GREY FLEABANE.

Plate 60 Fig. 7.

Character of the Species.

*Conyza cinera.*

The Leaves are oblong : the Flowers stand in large divided clusters.

Fig. 7. *ab.*

THIS is an Annual, native of the East-Indies, and flowers in July. the Leaves are oblong, of a fine green, and sometimes lightly indented. The Stalks are of a yellowish green. The Flowers are very numerous, but not large : they stand in divided clusters at the tops of the branches.

### 8. THREE-FLOWERED FLEABANE.

Plate 60. Fig. 8.

Character of the Species.

*Conyza Chinenfis.*

The Leaves are egged, but somewhat swelling in the middle. The Flowers stand by threes.

Fig. 8. *ab.*

THIS is an Annual, native of China, and flowers in July. The Stalk is stained with red : the Leaves are of a fresh fine green, and the Flowers are of a dusky yellow, not very large or elegant.

### 9. SCABROUS FLEABANE.

Plate 60. Fig. 9.

Character of the Species.

*Conyza hirsuta.*

The Leaves are oval, undivided, rugged on the upper side, and hairy below.

Fig. 9. *ab.*

THIS is a native of China, a Biennial, flowering in August. The Stalks hairy and brown ; the Leaves are of a dusky brownish green on the upper side, and white underneath. The Flowers are yellow.

\* \* THE two last Species, and most of the others, have sometimes the Flower naked; and will be repeated under that form in the succeeding Clafs.

THERE is also an absolute shrub, with the Conyza Character, which will be given among the Shrubs and Trees.

## G E N U S XI.

### ETERNAL FLOWER.

#### XERANTHEMUM.

Character of the Genus.

The inner range of Scales are long, filmy, and shine, resembling rays. All are of a lanced form. The rays are very tubular at their Base.

Plate 61. Fig. *o a a*.

#### 1. SPREAD-LEAV'D ETERNAL FLOWER.

Plate 61. Fig. 1. AUSTRIAN PTARMACA.

Character of the Species.

*Xeranthemum annuum*.

The Leaves are lanced, and they spread out upon the Stalks.

Fig. 1. *a b*.

THIS is an Annual, native of many parts of Europe; and is so beautiful in itself, and capable of being so much improved by culture, that it was early received into our gardens; and has continued always in estimation. It is two feet high, and spreads into several branches: the Leaves are whitish, and the Stalks are hoary: the Flowers are of a fine purple, and very beautiful. They will preserve their lustre a great while, if kept dry: and have thence been called Eternal Flowers. Originally the Plant was known among our Gardeners by the name of Austrian Ptarmaca. The Flower grows larger and double by culture.

2. PIN-

ETERNAL

FLOWER. Pl. 61



Generic Character.



Spread-leaved Eternal Flower.



Pinnatifid Eternal Flower.



Superb Eternal Flower.



Few-flowered Eternal Flower.



Pro-liferous Eternal Flower.





## 2. PINNATIFID ETERNAL FLOWER.

Plate 61. Fig. 2.

Character of the Species

*Xeranthemum crucifolium.*

The Leaves are long, and deeply cut into Segments in the pennatifid manner.

Fig. 2. *a.*

THIS is a native of Siberia, a perennial and very beautiful Plant. The Stalks are weak, and lean a little on the ground: the Leaves are of a pale green: the Flowers are pale and small: the Stalk has often some tinge of crimson, where it leans upon the earth. It flowers in August.

## 3. FEW-FLOWERED ETERNAL FLOWER.

Plate 61. Fig. 3.

Character of the Species.

*Xeranthemum vestitum.*

The Leaves are linear: the Footstalks of the Flowers are covered with many small Leaves.

Fig. 3. *a b.*

THIS is a Perennial, native of the Cape of Good Hope; a very beautiful Plant: the Stem is woody, and its Bark is rough; the young Shoots are whitish: the Leaves are white and downy, or even woolly: the Flower is very large and snow white, and has a glos like Pearl, most singularly beautiful.

## 4. SUPERB ETERNAL FLOWER.

Plate 61. Fig. 4.

Character of the Species.

*Xeranthemum speciosissimum.*

The Leaves are lanced: the Footstalks of the Flowers are almost naked.

Fig. 4. *a b.*

THIS also is a native of the Cape, a Perennial, with a woody Stem, but no true Shrub. The Shoots and Leaves are covered with a white cottony matter. The Flowers are very large, and with their nature pearly white, have a tinge of red.

## 5. PRO-

## 5. PROLIFEROUS ETERNAL FLOWER.

Plate 61. Fig. 5.

Character of the Species.

*Xeranthemum proliferum.*

The young Shoots rise in numbers from one Point: the Leaves stand close.

Fig. 5. *a b.*

THIS also is an Æthiopian, a beautiful Plant, with a woody Stem, and innumerable Branches. The Leaves are of a greyish green, and the Flowers are white.

## 6. DECUMBENT ETERNAL FLOWER.

Plate 62. Fig. 6.

Character of the Species.

*Xeranthemum retortum.*

The Stem is hard but decumbent: the Leaves are downy, and turn back.

Fig. 6. *a b.*

THIS is another of the woody Cape Plants, which some have called Shrubs, tho' without just cause. The seasons there are so mild, that the Stalks remain from year to year; and by remaining harden: a little severe weather would kill them, and the Root only would remain; it would then shoot again in Spring, and the Stalks, not having more than one Summer's duration, would be firm but not woody. This degree of hardness and permanency which is owing more to the climate than the nature of the Plant, cannot make it a proper Shrub. It is common among the Cape Plants; and being once explained, will be always understood hereafter.

THE Stalks of this Species are a yard long; they lie upon the ground. The Leaves are small and silvery; the Flowers are white; they have the same gloss as the others of this kind, and are very beautiful.

# ETERNAL FLOWER.

Pl 62.



*Decumbent Eternal Flower.*



*Edged leaved Eternal Flower.*



*Prickly Eternal Flower.*



*Scaly Eternal Flower.*



*Hoary Eternal Flower.*



## 7. EDG'D-LEAVED ETERNAL FLOWER.

Plate 62. Fig. 7.

Character of the Species.

*Xeranthemum ciliatum.*

The Stalk is weak but woody : the Leaves are edged with stiff short hairs.

Fig. 7. *a b.*

THIS is another of the woody-stalked *Xeranthemums* of the Cape ; and, by a very singular accident has been confounded even under the sanction of great Names with the Reflex Aster. The Stalks are brown and weak : the Leaves are small and bent back, and they have a rough brown edge. The Flowers are large and white.

## 8. PRICKLY ETERNAL FLOWER.

Plate 62. Fig. 8.

Character of the Species.

*Xeranthemum spinosum.*

The Scales of the Cup terminate in hard sharp thorns.

Fig. 8. *a.*

THIS is a Perennial, native of *Æthiopia* ; a very beautiful Plant. The Stalk is whitish ; the Leaves also are of a whitish green. The Flower is of a very beautiful crimson : it is more compact than in the others ; and the Cup is prickly.

## 9. SCALY ETERNAL FLOWER.

Plate 62. Fig. 9.

Character of the Species.

*Xeranthemum Sefamoides.*

The Leaves are scaly, and stick close to the Branches

Fig. 9. *a b.*

THIS also is a native of the Cape, with tough woody Twigs ; a pretty looking Plant, and flowers in August. The Shoots are whitish and downy ; the Leaves are of a whitish colour, often tending to brown : and the Flowers are pearly white.

## 10. HOARY ETERNAL FLOWER.

Plate 62 Fig. 10.

Character of the Species.

*Xeranthemum paniculatum.*

The Leaves are linear, but sharp-pointed and hoary.  
The Flowers stand in divided clusters.

THIS also is a woody Plant, native of the Cape; and flowers in August. The branches are whitish; the Leaves are grey and hoary, and the Flowers snow white.

## G E N U S XII.

## S C A L E W O R T.

## L E P I A.

Character of the Genus.

The Cup is cylindric: its Scales are oval, broad, hollowed, and swell outward: each is terminated at its top by a broad, obtuse, rounded, shining rim, of a dry thin substance.

Plate 63. Fig. *o a b.*

OF this Genus we yet know only one Species.

## 1. GOLDEN SCALEWORT.

Plate 63.

Character of the Species.

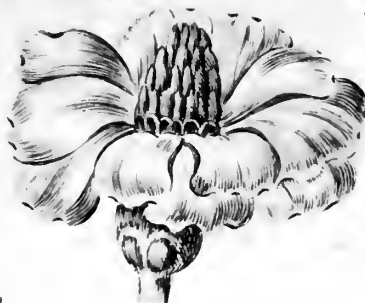
The Leaves are placed in pairs, and have no Footstalks.

Fig 63. *a b.*

THIS is an Annual, native of China, and flowers in July and August. It is very new in Europe, not being seen here till the year 1758, when it was raised from seeds, I received from a correspondent in China. The Plant is two feet and a half high: the Stalk is round, firm,

SCALEWORT.

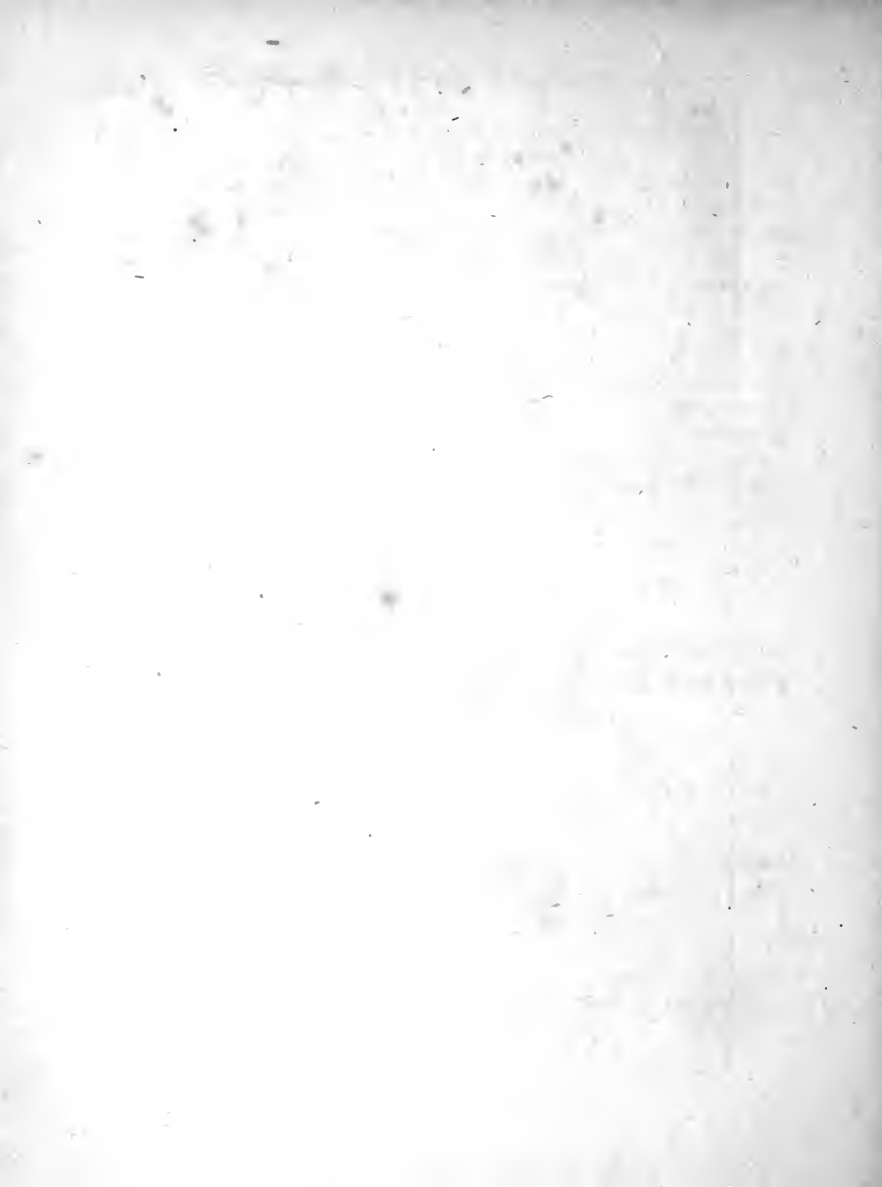
Pl. 63.



Generic Character.



Golden Scalewort.





firm, and brown: the Branches are numerous and ascendent: the Leaves are of a strong and but coarse green. The Flowers stand singly at the tops of all the Branches, and they are large and yellow. The first Flower which blows, is placed at the head of the proper Stalk, and is the largest and most perfect; its rays are remarkably broad, and their colour is a delicate yellow. Some of the Branches soon overgrow this in height, and consequently place their Flowers above it; but they are always smaller, and less perfect.

FROM what I have seen in some imperfect trials, I think this Plant may have its Flower doubled, enlarged, and quilled by culture; and in that state will have the aspect of the Tagetes, but with a better cup, and more breadth in the Rays; and consequently may be made a finer Flower.

I NAMED it *Lepia*, from the peculiar form and construction of the Scales of the Cup; which resemble the little Flakes of Talc.

## G E N U S XIII.

### F E V E R - F E W.

#### M A T R I C A R I A.

Character of the Genus.

The Cup is hemispheric, and is composed altogether of linear equal Scales.

Plate 61. Fig. *a a b*.

### 1. R A M O S E F E V E R - F E W.

Plate 64. Fig. 1

COMMON FEVER-FEW.

Character of the Species.

*Matricaria Parthenium* dista.

The Footstalks of the Flowers are branched; the Leaves are composed of many oval jagged parts.

Fig. 2. *a l*.

THIS is a Perennial, native of our own country, and common in waste places; flowering from July to November. It is two feet high,  
and

and very much branched : the Leaves are of a pale and somewhat yellowish green : the Flowers are white, with a yellow Disk. In many places we see them naked ; and in gardens double.

## 2. FLESHY-LEAV'D FEVER-FEW.

Plate 64. Fig 2.

SEA-CHAMÆMILE.

Character of the Species.

*Matricaria maritima.*

The Leaves are fleshy, and twice winged ; and stand alternate : the Segments are convex on the upper side, and hollow below.

Fig. 2. *a b.*

THIS also is an English perennial Herb, native of our sea coasts ; a low Plant, flowering in August. The Stalks are red toward the ground : the Leaves are of a dark green : the Flowers are white, with a yellow Disk.

## 3. FINE-LEAV'D FEVER-FEW.

Plate 64. Fig. 3.

Character of the Species.

*Matricaria chamæmilla dicta.*

The Leaves are recompond with thready Segments : the Rays of the Flower spread.

Fig. 2. *a b.*

THIS also is a native of England, an Annual, common in corn-fields and on banks, flowering from July to November. The Authors of earlier time called both this and the former, Species of Chamæmille ; but the Cup shews them to be of another Genus.

THIS is a foot and a half high : the Stalk is pale : the Leaves are of a dark green ; the Flowers are large and white, with a rounded yellow Disk.

## 4. SIL-

FEVERFEW.

Pl. 64



Generic Character.



Ramee Feverfew.



Flethy leaved Feverfew.



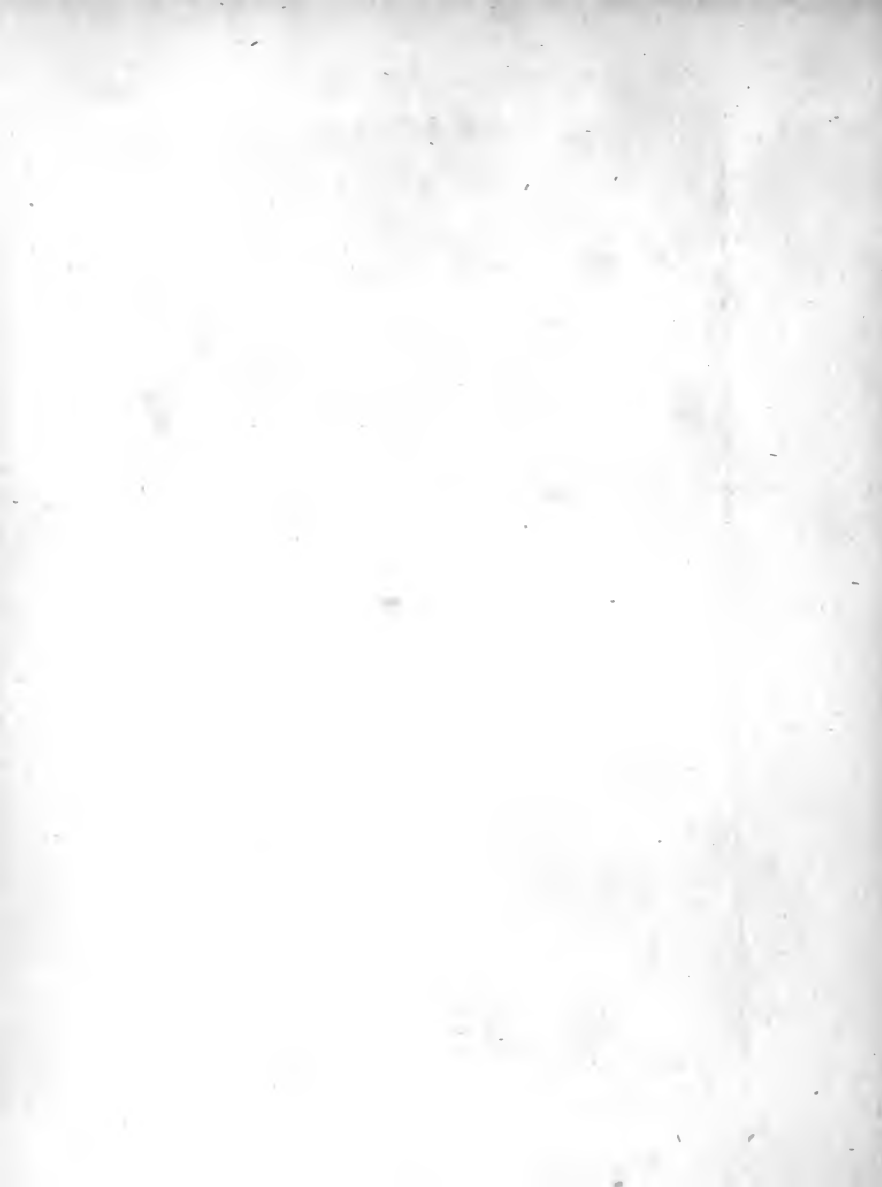
Fine leaved Feverfew.



Silvery Feverfew.



Fragrant Feverfew.



## 4. SILVERY FEVER-FEW.

Plate 64. Fig. 4.

Character of the Species.

*Matricaria argentea.*

The Leaves are bipinnate, and stand in pairs: the Flowers stand singly on their Footstalks.

THIS also is a native of the East, a very pretty Plant. The Stalk is grey. The Leaves are very beautifully divided, and of a silvery white; and the Flowers are white, with a yellow Disk.

## 5. FRAGRANT FEVER-FEW.

Plate 64. Fig. 5.

Character of the Species.

*Matricaria recutita.*

The Leaves are finely divided: the Rays of the Flower hang drooping.

Fig. 5. *a b.*

THIS is an Annual, native of the southern parts of Europe; and flowers in August. The Stalk is a foot high: the Leaves are of a pale green: the Flowers are white: but their high Disk is of a fine yellow.

## G E N U S XIV.

## Y A R R O W.

## A C H I L L Æ A.

Character of the Genus.

The Cup is oval, and drawn in at the top: its Scales are oval and acute.

Plate 65. Fig. *a a b.*

## 1. TWICE-WING'D YARROW.

Plate 65. Fig. 1.

Character of the Species.

*Achillæa bipinnata.*

The Leaves are twice divided, in the winged manner ;  
and the Leaflets are oval.

Fig. 1. *a b.*

THIS is a perennial, native of the East ; but will bear the open air in a dry soil with us. The Plant is ten Inches high : the Stalk is downy and white : the Leaves are also white, and the Flowers stand so close, that they resemble only a spot of that yellow Moss we see on walls in Winter. The Leaflets are often united so as to form only Segments ; and the Leaves are so downy, that their outline is not seen distinctly. LINNÆUS has placed this among his white-flower'd *Achillæas* ; but it is only some oversight. The Flowers are yellow. It blows in August.

## 2. HAIRY YELLOW YARROW.

Plate 65. Fig. 2.

YELLOW YARROW

Character of the Species.

*Achillæa tormentosa.*

The Leaves are winged : the Leaflets are cut into three parts at the top, and the middle one of these is longest.

Fig. 2. *a b.*

THIS is a Perennial, native of France and Germany, and has been long common in our Gardens ; where it flowers all the latter part of Summer. The Plant is a foot high : the Leaves are covered with flight hairs : the Flowers are large and yellow.

## 3. P A S -



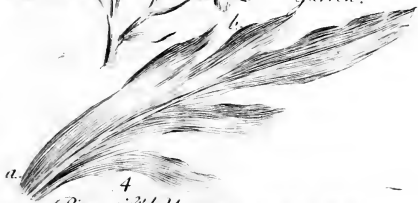
Generic Character.



Twice wing'd Yarrow.



Flairy Yellow Yarrow.



Pinnatifid Yarrow.



Pasture

Yarrow.



Open-leaved Yarrow.







## 3. PASTURE YARROW.

Plate 65. Fig. 3. COMMON YARROW,

Character of the Species.

*Achillea millefolium dicta.*

The Leaves are bipinnate ; and the Leaflets stand close, and are not hairy.

Fig. 3. *a b.*

THIS is a Perennial, the common Yarrow of our pastures, flowering from June to November. The Plant is two feet high : the Leaves are dark green, and the Flowers are naturally white ; but they have often a very delicate blush of crimson.

## 4. PINNATIFID YARROW.

Plate 65. Fig. 5.

Character of the Species.

*Achillea clavennæ.*

The Leaves are woolly, and are cut deep into broad, irregular, obtuse Segments.

Fig. 4. *a b.*

THIS is a Perennial, native of Germany ; and flowers in July. The Plant is ten Inches high : its Leaves are silvery, white, and so downy, that their outline is but indistinctly seen. The Flowers are large and white.

## 5. OPEN-LEAV'D YARROW.

Plate 65. Fig. 5.

Character of the Species.

*Achillea nobilis.*

The Segments of the Leaves spread open.

This is a Perennial, native of Switzerland, Germany, and elsewhere in Europe. It flowers in July. The Plant is a yard high, and remarkably erect. The Leaves are of a pale green, their Segments stand wide asunder. The Flowers are moderately large and white.

6. CURLEY

## 6. CURLY YARROW.

Plate 66 Fig. 6.

Character of the Species.

*Achillæa fantolina.*

The Leaves are bristly and dented; and the points of the divisions curl back.

Fig. 6. *ab.*

THIS is a Perennial, native of the Greek islands; and flowers in August. The Plant is two feet high: the Leaves are of a pale green: and the Flowers are large, and of a strong and good yellow. There is a slight downy matter spread over the whole Plant, Leaves, Stalks, and Cups, but mostly on the latter.

## 7. LANCED YARROW.

Plate 66. Fig. 7.

Character of the Species.

MAUDLIN.

*Achillæa ageratum diſſa.*

The Leaves are single, lanced, serrated, and obtuse.

Fig. 7. *a.*

THIS is a perennial, native of Hungary, and other parts of Europe, and flowers in August. It is two feet and a half high: the Leaves are of a yellowish green: the Stalks are of the same hue, but paler, and the Flowers are yellow: they are moderately large and lasting.

## 8. SICKLED YARROW.

Plate 66. Fig. 8.

Character of the Species.

*Achillæa falcata.*

The Leaves are linear, obtuse, and doubly dented; and they are naturally hooked.

Fig. 8. *a.*

THIS is a native of the islands of the Archipelago; a singular and elegant perennial Plant, flowering in July and August. The Stalk is pale: the Leaves are but of a dead green. The Flowers are of a very faint yellow.

9. GOL-

YARROW.

Pl. 60.



*Curley Yarrow.*



*Sanded Yarrow.*



*Tickled Yarrow.*

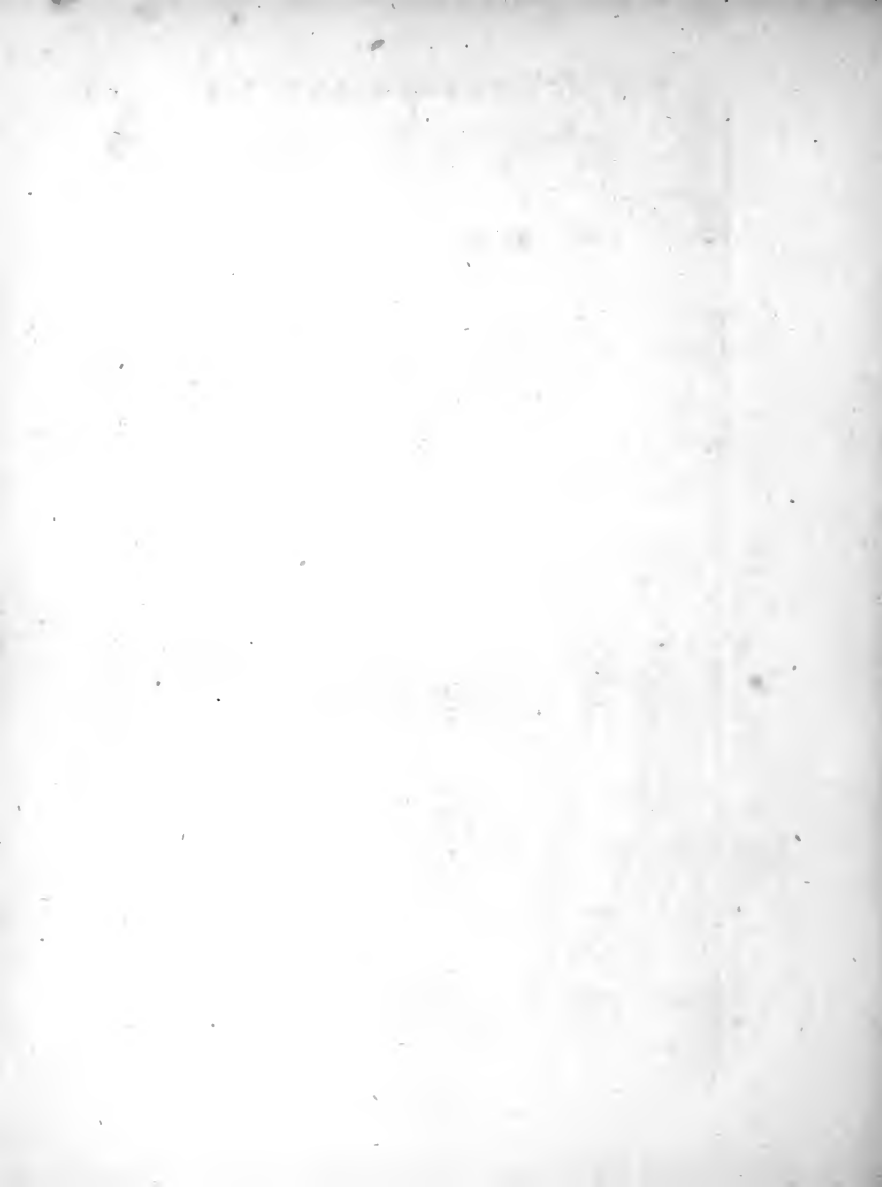


*Golden Yarrow.*



*Recompound Yarrow.*





## 9. GOLDEN YARROW.

Plate 66. Fig. 9.

Character of the Species.

*Achillea pubescens.*

The Leaves are winged ; the Leaflets are lanced and dented and woolly underneath.

Fig. 9. *a b.*

THIS also is a Perennial, native of the East ; and flowers in July. The Plant is two feet high : the Stalk is reddish usually at the Base : the Leaves are of a pale green on the upper side, and quite white and woolly on the under. The Flowers are very conspicuous : their colour is a very perfect and delicate gold yellow. VAILLANT very fitly names it *Flore Aureo*.

## 10. RECOMPOUNDED YARROW.

Plate 66. Fig. 10.

Character of the Species

*Achillæa abrotani folia.*

The Leaves are divided into innumerable slender Segments, which stand distant.

Fig. 10. *a.*

THIS is a native of the East, a Perennial ; flowering in Autumn, a very stately and beautiful Plant. The Stalk is upright, firm, and four feet high. The Leaves are of a fine and delicate, though not strong green. The Flowers are yellow.

## 11. IRREGULAR LEAV'D YARROW.

Plate 67 Fig. 11.

Character of the Species.

*Achillæa macrophylla.*

The Leaves are winged : the Side Leaflets are narrow and distinct ; those toward the end run together, and form one large irregular lobe.

Fig. 11. *a b.*

THIS is a Perennial, native of the Pyrenæan and Swiss mountains. It flowers in August. The Stalk is upright, round, pale, and three feet

feet high. The Leaves are four or five inches long; of a fresh but not deep green; and the Flowers are white, and placed in broad clusters.

## 12. GLOSSY YARROW.

Plate 67. Fig. 12.

Character of the Species.

*Achillæa impatiens.*

The Leaves are winged: the Leaflets stand distant, and are glossy.

Fig. 12. *ab.*

THIS is a Perennial, native of Siberia, and flowers in September. The Stalk is two feet high, round, firm, pale, smooth, and hollow: the Leaves are of a deep and shining green: the Flowers are white.

## 13. SHARP-SAW'D YARROW.

Plate 67. Fig 13.

SNEEZEWORT.

Character of the Species.

*Achillæa Parmacia dicta.*

The Leaves are narrow, lanced, sharp pointed, and very sharply serrated.

Fig. 13. *a.*

THIS is a Perennial, native of many parts of Europe; and flowers from June to October. It is two foot and a half high. The Stalk is round, smooth, firm, and pale. The Leaves are of a dead green, rigid and hard to the touch. The Flowers are large and white; and they crown the Stalk in an open cluster: Culture easily renders them double.

## 14. DOUBLE-

YARROW.  
3

pl. 67.



*Glossy Yarrow.*  
*Irregular leav'd Yarrow.*



*Sharp Saw'd Yarrow.*



*Doubly jagged Yarrow.* *Pectinote Yarrow.*





## 14. DOUBLE-JAGG'D YARROW.

Plate 67. Fig. 14.

Character of the Species

*Achillea Alpina.*

The Leaves are lanced, and deeply fawed; and the teeth are fawed again.

Fig 14. *a.*

THIS is a native of the mountains of Siberia, a rough perennial Plant, flowering in August. The Stalk is pale, and somewhat weak: the Leaves are of a fine green, and the Flowers are white.

## 15. PECTINATE YARROW.

Plate 67. Fig. 15.

Character of the Species.

*Achillæa atrata.*

The Leaves are winged; the Leaflets are oblong, and cut like the teeth of a comb at their edges.

Fig. 15. *a.*

THIS is a Perennial, native of the Swiss mountains, and other parts of Europe. The Plant is two feet and a half high: the Stalk is red towards the ground: the Leaves are of a pale green, and somewhat hoary: and the Flowers are white; but there is a blackness about the Cups.

## 16. DWARF YARROW.

Plate 68. Fig. 16.

Character of the Species.

*Achillæa nana.*

The Leaves are winged; the Leaflets are indented, and covered with a cottony matter. The Flowers stand clustered, and their Cups are small.

Fig. 16. *a b.*

THIS is a Perennial, native of the Swiss and Austrian mountains, a small and humble Plant, flowering in July. The Stalks are weak, woolly, and seldom above six inches long. The Leaves are of a greyish

greyish colour, and the Tuft of Flowers has a tinge of brown : this is from the Cups ; for the Flowers themselves are white ; but they are small, and stand confused in their thick cluster. The Cups have always an evident tinge of a pale brown.

### 17. WOOLLY YARROW.

Plate 68. Fig. 17.

Character of the Species.

*Achillæa Cretica.*

The Leaves are winged ; the Leaflets are roundish, and imbricated backwards.

THIS is a native of the islands of the Archipelago, a perennial, hardy Plant ; and flowers in August. The Stalk is covered with a white woolly matter : The Leaves are of a pale green, and have a very singular aspect, from the imbricated disposition of the Leaflets. The Flowers are white, not large, but of a bright and pleasing aspect.

### 18. CRESTED YARROW.

Plate 68. Fig. 18.

Character of the Species.

*Achillæa Ægyptiaca.*

The Leaves are pinnated, and the Leaflets are jagged and crested.

Fig. 18. *a b.*

THIS is a native of Egypt, a beautiful little Plant. The Stalk is low and weak, edged, and of a greyish green colour. The Leaves are very beautiful ; they are of a whitish hue ; but their crested edge is brown. The Flowers are small, and of a pale yellow. They blow in September.

### 19. TRIFID

YARROW.

4

3.



14. 63.



16

*Dwarf Yarrow.*



17

*Woolly Yarrow.*



18

*Crested Yarrow.*



19

*Trifid Yarrow.*



## 19. TRIFID YARROW.

Plate 68. Fig. 19.

Character of the Species.

*Achillæa inodora.*

The Leaves are jagged, deep at the edge, and cut into three at the ends.

Fig. 19. *a b.*

THIS is a Perennial, native of Africa, and flowers in August. The Stalk is of a faint green: the Leaves are very beautifully cut, and their edge, as in the last Species, is usually of a colour different from the rest, a pale brown, the body of the Leaf being a pale green. The Flowers grow in full clusters, and are of a very delicate, though not strong yellow.

## G E N U S XV.

## GOLDEN ROD

## SOLIDAGO.

Character of the Genus.

The Cup is Cylindric: its Scales are narrow, and sharp pointed: they stand erect; only the Points of the upper Series turn a little inwards.

Plate 69. *a b.*

## 1. FLESHY-LEAV'D GOLDEN ROD.

Plate 69. Fig. 1.

Character of the Species.

*Solidago semper virens.*

The Leaves are lanced, and somewhat fleshy: their Surface is smooth, but their Edge is rugged.

Fig. 1. *a b.*

THIS is a Perennial, native of New-England; a very stately and robust Plant, six feet high, or more; flowering in October. The Stalk is naturally crimson: the Leaves are of a fine fresh green, but a little brownish, and rugged at the edges: and they defy our frosts,

and keep in health and freshness all the Winter. The Flowers are of a beautiful yellow, and crown the tops of the Plants in large spreading moderately open clusters.

## 2. ROUGH-LEAV'D GOLDEN ROD.

Plate 69. Fig. 2.

Character of the Species.

*Solidago canadensis.*

The Leaves are narrow: they have three strong Ribs; and they are rough on the Surface, and slightly sawed at the Edge. The Branches of Flowers turn back; but the Flowers stand upwards.

Fig. 2. *a b.*

THIS is a Perennial, native of North-America, and flowers toward the end of September. The Stalk is pale green, and four feet and a half high. The Leaves are of a faint and but obscure green: The Flowers form a vast spreading and very elegant Panicle, and are of a good yellow.

## 3. EVEN-LEAV'D GOLDEN ROD.

Plate 69. Fig. 3.

Character of the Species.

*Solidago altissima.*

The Leaves have no distinguishable Ribs: the Flowers stand slanting on the flowering Branches.

Fig. 2. *a b.*

THIS also is a Perennial, native of North-America, and flowers at the very latter end of Autumn. The Stalk is rugged, upright, and near four feet high. The Leaves are uncertainly and irregularly dented; but their Surface is even, and they have no apparent Ribs. The Flowers stand on the top in very large beautiful spreading clusters.

## 4. HARSH

GOLDEN ROD.

Pl. 60.



a.

Generic Character.



*Flaky-leaved Golden Rod?*



2

*Rough-leaved Golden Rod?*



*Even-leaved Golden Rod?*





## 4. HARSH GOLDEN ROD.

Plate 70. Fig. 4.

Character of the Species.

*Solidago rigida.*

The Leaves are oval, harsh, and waved: the Flower-stalks from the bosoms of the Leaves rise as high as those which terminate the Stalk: and the Flowers crown it in a broad even Bunch.

Fig. 4. *a b.*

This is a native of Pennsylvania, and New-England, a Plant very distinct from the rest in its general aspect, and in the disposition of its Flowers. The Flowers themselves are also larger, than in most of the *Solidagos*; the Rays longer, and the colour a better yellow. It is about a foot and a half high: the Stalk is pale, thick, and upright: the Leaves are of a dusky green, and are remarkably hard and harsh to the touch. It flowers in August.

## 5. DELICATE GOLDEN ROD.

Plate 70. Fig. 5.

Character of the Species.

*Solidago Mexicana.*

The Stalk rises oblique: the Leaves are lanced and undivided: the Foot-stalks of the Flowers are upright and leafy.

Fig. 5. *a b.*

THIS is a Perennial, native of South-America; but bears the free air very well with us, and is the most delicate by far of all the Golden Rods. The Plant is three feet high: the Stalk is naturally tinged with crimson: the Leaves are smooth, and of a pale green: the Flowers spread over the expanded top of the Stem in a vast open cluster: they are in their shape as well as colour delicate and tender: they are slenderer than in others: they stand more distant, and their colour is a fine pale, golden yellow. It flowers in the beginning of September.

## 6. CLUSTERY

## 6. CLUSTERY GOLDEN ROD.

Plate 70. Fig. 6.

Character of the Species.

*Solidago lateriflora.*

The Leaves are lanced, and have only one or two indentings. The Flowers stand at the tops of the Branches in compact close clusters. The Branches rise from the lower part of the Stalk.

Fig 6. *abc.*

THIS is a singular Species differing from the other kinds in its manner of growth. It is four feet high. The Stalk rises single to its summit, only a little below the middle of its height there grow up several ascendant Branches like the main Stem, and each of them terminated by the same sort of cluster of Flowers. It blows in September.

## 7. GLAUCOUS GOLDEN ROD.

Plate 71. Fig. 7.

Character of the Species.

*Solidago cæsia.*

The Leaves are oblong, lanced, and sharply ferrated : the Flowers are placed in a very long Spike ; and the Stalks are not leafy.

Fig. 7. *ab.*

THIS is a Perennial, native of North-America, and flowers late in September. The Plant is four feet and a half high : the Stalk is of a pale greyish green ; and the Leaves are of that kind of greyish or bluish green we see in many of the Sea Plants. The Flowers are larger than in many others, and of a very good, though not bright yellow. They crown the tops of the main Stalk, and of a multitude of Shoots, which rise from the bosoms of the upper Leaves : these form together a long and regular spike, and give the Plant an aspect very different from those whose clusters of Flowers spread out in the usual way, with great breadth.

## 8. TORTUOUS

GOLDEN-ROD.  
2

11.70.



4

*Harsh Golden-Rod?*



3  
*Delicate Golden-Rod.*



6  
*(Harsh) Golden-Rod?*





GOLDEN ROD.

Pl. 71.

3.



a.

7

*Glauca*  
*Golden Rod?*



9



8



*Broad-leaved Golden Rod.*

*Tortuous Golden Rod?*

## 8. TORTUOUS GOLDEN ROD.

Plate 71. Fig. 8.

Character of the Species.

*Solidago flexicaulis.*

The Stalk is bent from Joint to Joint: the Leaves are oval and ferrated: the Flowers grow in flight Spikes from their Bosoms.

Fig. 8. *abc.*

THIS is a North-American, a Perennial, which bears the air with us, and flowers in the beginning of October. The Plant is two feet high; and its Stalk not firm: it is bowed, or knee'd as it were, from joint to joint, and is of a yellowish green. The Leaves are of a fresh green: but they also have some tinge of yellowish. The Flowers are pale yellow.

## 9. BROAD LEAV'D GOLDEN ROD.

Plate 71. Fig. 9.

Character of the Species.

*Solidago latifolia.*

The Leaves are very broad, oval, smooth, and ferrated: the Stalk is robust: the Spikes of Flowers stand loose and free at the top, in a broad open cluster.

Fig. 9. *abc.*

THIS also is a Perennial, native of North-America; a very handsome robust Plant, flowering late in Autumn. The Stalk is four feet high, and has no Branches but near the top: the Leaves stand free and open; and are of a deep, but not dusky green. The Flowers grow on long free spiky Stalks, crowning the head of the Plant, and rising from the bosoms of the upper Leaves.

## 10. SPIRY GOLDEN ROD.

Plate 72. Fig. 10.

WILD GOLDEN ROD.

Character of the Species.

*Solidago virga aurea dicta.*

The Stalk is jointed, and somewhat weak and angulated : the Flowers stand in short and close clusters, from the middle to the top of it.

Fig. 10. *abc.*

THIS is a native of our own country : it is frequent on Hampstead Heath, and other dry and high grounds, flowering from August to October ; the common English Golden Rod : it is two feet high : the Stalk is slender and yellowish : the Leaves are of a dusky green : the Flowers are small, and of a fine gold yellow. This Plant is lately found to be excellent in the gravel ; but only this should be used : the American kinds have very different qualities.

## 11. NAKED GOLDEN ROD.

Plate 72 Fig. 11.

Character of the Species.

*Solidago naveborascensis.*

The Stalk has only two or three Leaves on it, which are oblong : those from the Root are broad, and have Footstalks : the Flowers stand singly at the tops of the Branches, and are large and yellow.

Fig. 11. *abc.*

This is a Perennial, native of New-York and the adjacent parts of North-America, flowering in Autumn : its manner of growth and its aspect are very unlike the generality of the others. The Plant is scarce more than one foot in height ; the radical Leaves are oval, and have long red Footstalks. The Leaves on the Stalk are little more than films. The Flowers are large and yellow, and they stand free and open.

## 12. HEART-



GOLDEN ROD.

4

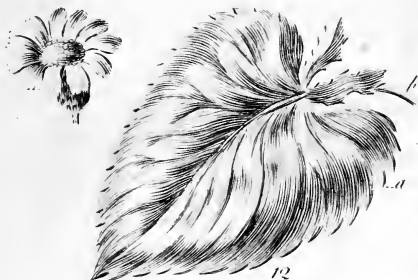
Pl. 72.



*Naked Golden Rod?*

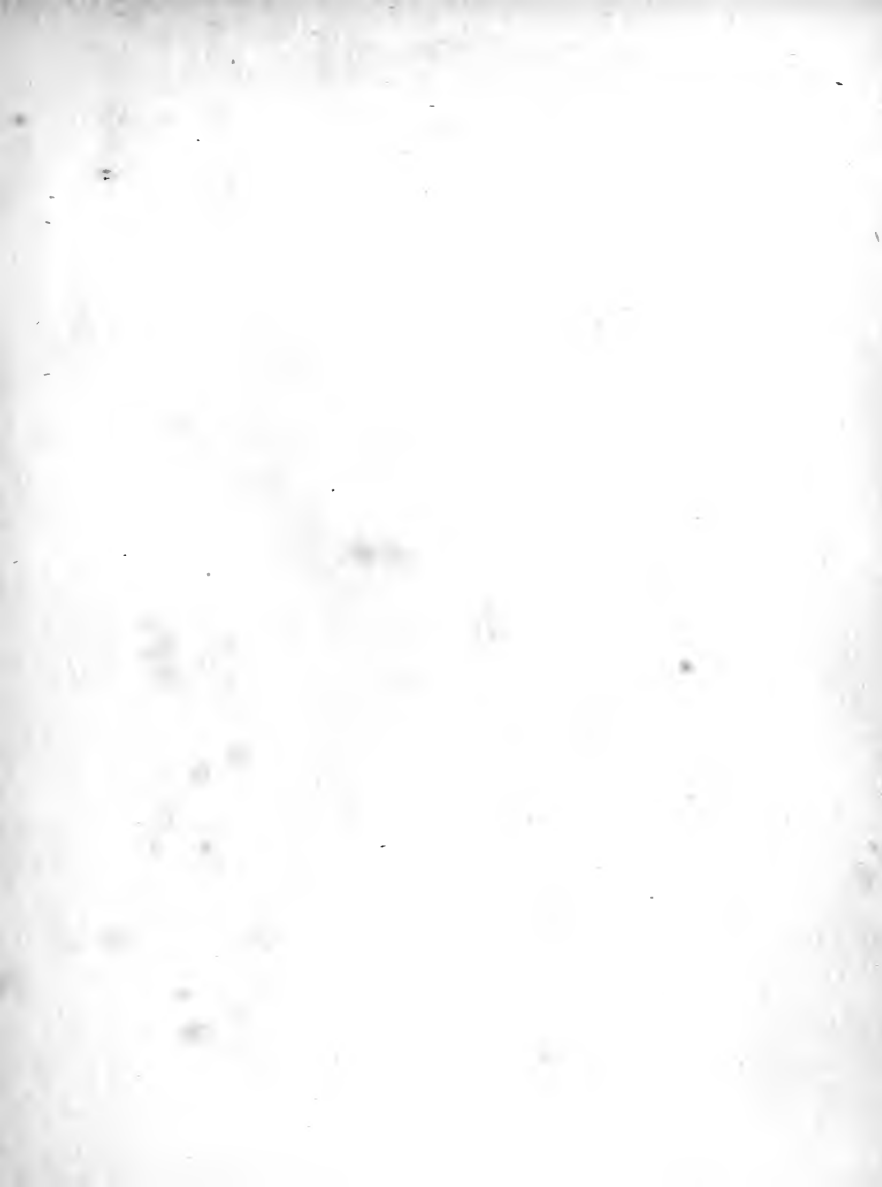


*Spiny Golden Rod.*



*Heart-leaved Golden Rod?*





GOLDEN-ROD.

5

Pl. 73



*Single Flowered*



*Golden-Rod*



*Single Golden-Rod*



*Percurrent Golden-Rod*

## 12. HEART-LEAV'D GOLDEN ROD.

Plate 72. Fig. 12.

Character of the Species.

*Solidago Alpina.*

The Leaves are heart-shaped and indented, and they have Footstalks.

Fig. 12. *ab*,

THIS is an European, native of Switzerland and Germany; and, though the structure of its Cup compels us to rank it among the Golden Rods, its habit would refer it to another Genus: it is the Link by which Nature has connected Golden Rods and the radiated Groundsells. The Plant is two feet high. The Stalk is often deeply tinged with red: the Leaves are of a feint green on the upper side, and they are white and downy underneath: the Flowers are very large, and of a delicate yellow; and they crown the Stalk in considerable clusters.

## 13. FEW-FLOWERED GOLDEN ROD.

Plate 73. Fig. 13.

Character of the Species.

*Solidago Doronicum.*

The Plant has only one or two Flowers: the Leaves are lanced and indented, and those on the Stalk embrace it at their Bases.

Fig. 13. *ab*.

THIS is a Perennial, native also of Europe, and particularly of Switzerland and Italy. The Stalk is crimson toward the Base, and is lightly ridged. The Leaves are rough and hairy: they are naturally of a deep green; but the hairs are so numerous, as to give them a whitish aspect. The Flowers are large, and of a good yellow: they blow in July and August.

## 14. LINEAR

## 14. LINEAR GOLDEN ROD.

Plate 73. Fig. 14.

Character of the Species.

*Solidago linifolia.*

The Leaves are narrow, all the way of a breadth, and undivided at the Edge. The Flowers form a simple cluster at the head of the Stalk.

Fig 14. *a b.*

THIS is a Perennial, native of the southern parts of Europe, and flowers in August. The Stalk is pale and weak: the Leaves are of a delicate green, somewhat paler on the under side than on the upper. The Flowers are of a feint but delicate yellow; and they are disposed with a beautiful simplicity in one simple cluster on the top of the Stalk.

## 13. DECURRENT GOLDEN ROD.

Plate 73. Fig. 15.

Character of the Species.

*Solidago montana.*

The Stalk is angulated: the Leaves are lanced and fawed at the Edge; they run down the Stalk for a considerable length from the Base.

Fig. 15. *a b.*

THIS is a native of the south of France, a Perennial; flowering on the dryest and most exposed spots of ground from August to October. The Stalk is edged, and as it were rib'd: its natural colour is a feint green, but toward the ground usually, and sometimes all the way up, it is stained with crimson, The Leaves are of a pale, but not disagreeable green; and the Flowers are of a beautiful feint yellow

G E N U S

## G E N U S XVI.

S I M S O N.

E R I G E R O N.

Character of the Genus.

The Cup is cylindric: the Scales are awly, upright, and equal. The Rays of the Flower do not spread, but stand upright, and are narrow.

Plate 74. *a a*.

## 1. SIDE-FLOWERING SIMSON.

Plate 74. Fig. 1.

Character of the Species.

*Erigeron viscosum.*

The Flowers stand singly on Footstalks from the bosoms of the Leaves: the Cups are rugged.

THIS is a Perennial, native of the southern parts of Europe, and flowers in August. It is a yard high: the Stalk is firm and harsh: the Leaves are of a pale but not unpleasing green: they are harsh to the touch, and at the same time clammy: for they have hairs and glands intermixed on their surface. The Flowers are placed singly on Footstalks, which rise from the bosoms of the Leaves; and they are yellow. The Cups are very apt to decay, and grow rotten; in which case they have a coarse aspect.

## 2 LINEAR SIMSON.

Plate 74. Fig. 2.

Character of the Species.

*Erigeron Carolinianum.*

The Leaves are long, and linear, with a simple, undivided Edge. The Flowers spread in a wide bunch.

Fig. 2. *a b*.

THIS is a Perennial, native of Carolina, a singular and not inellegant Plant; flowering in September. The Stalk is two feet high:

VOL. II.

B b b

the

the Leaves are simple, narrow, and neither jagged, filmy, nor hairy at the edge. The Flowers are small and yellow: they stand upon the top of the Stalk in a simple and somewhat open head.

### 3. CLUSTERY SIMSON.

Plate 74. Fig. 3.

Character of the Species

*Erigeron Canadense.*

The Leaves are narrow: the Flowers stand at the head of the Stalk, in a divided and thick cluster.

Fig. 3. *a b.*

THIS is an Annual, native of North-America; but now found wild in many parts of England; the Seeds flying far, and taking root any where. It is a foot high. The Stalk is green; sometimes a little tinged with crimson. The Leaves are of a pale green: the Flowers are small and white. It flowers in June.

### 4. REVOLUTE SIMSON.

Plate 74. Fig. 4.

Character of the Species.

*Erigeron bonariense.*

The Leaves turn down at their Base: the radical ones are pinnatifid; and those on the Stalk entire.

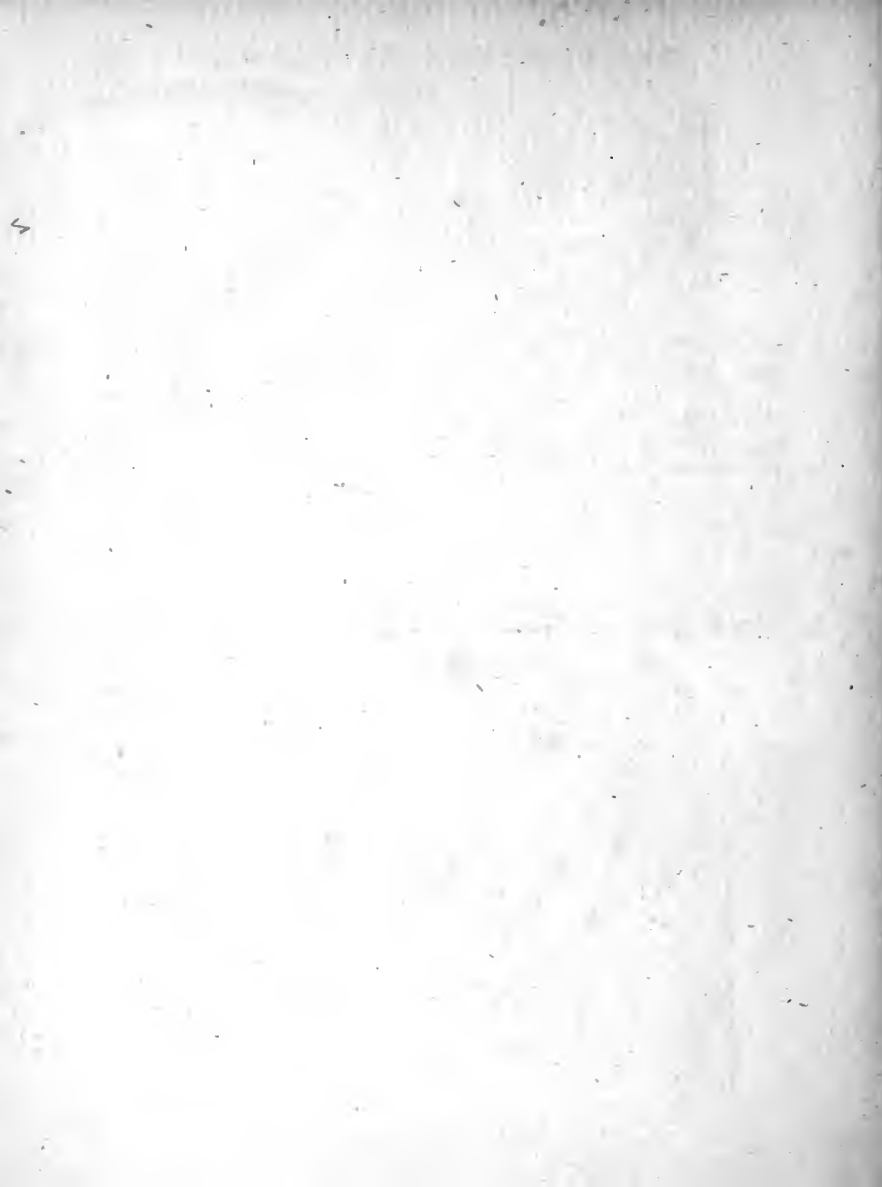
Fig. 4. *a b.*

THIS is an Annual, native of Carolina, and flowers in August. It is a foot and a half high; the Leaves are of a good green, but with some tinge of yellowness. The Flowers are of a delicate yellow but small, and not very conspicuous.

### 5. LANCED







## 5. LANCED SIMSON.

Plate 75. Fig. 5.

Character of the Species.

*Erigeron Philadelphicum.*

The Leaves are lanced, and lightly ferrated: they embrace the Stem at their Base. The Stalk supports six or eight Flowers.

Fig. 5. *a l.*

THIS is a Biennial, native of Canada; and flowers in August: it is a small Plant, ten inches or a little more in height. The Stalk is reddish: the Leaves are of a dusky brownish green, and are somewhat hard to the touch. The Flowers stand at the tops of the Stalk, and sometimes of the Branches: they are small, and of a pale blossom colour; a white just tinged with crimson.

## 6 ALTERNATE FLOWERED SIMSON.

Plate 75. Fig. 6.

BLUE SWEET FLEABANE.

Character of the Species.

*Erigeron acre.*

The Leaves are waved: the Flowers stand singly on alternate Footstalks.

Fig. 6. *a b.*

THIS is a Perennial, a native of our own country; a low but singular, and very beautiful Plant. It flowers twice in the year in April and September; and at those two seasons wears a various appearance; in Spring it lies upon the ground; in September it is erect; in April its Leaves are short; in Autumn they are longer; but the Plant is evidently the same: the Stalk is crimson: the Leaves are of a good green naturally, but often stained very much with the red of the Stalk: the Flowers are not small; but they are less conspicuous than in those kinds in which the Rays spread. They are of a very delicate crimson.

## 7. HAIRY

## 7. HAIRY-CUP'D SIMSON.

Plate 75. Fig. 7.

Character of the Species.

*Erigeron Alpinum.*

The Cups of the Flowers are remarkably hairy.

Fig. 7. a.

THIS is a Perennial, native of Germany and Switzerland, and flowers in August: it is a foot and a half high: the Stalk is often reddish, and always lightly hairy: the Leaves are of a faint and dull green: the top of the Stalk is terminated by two or three Flowers: they are of a fine deep crimson, with a tinge of blue; and the down which follows on the Seeds, is not white, as in most Plants, but brown.

## 8. ONE-FLOWER'D SIMSON.

Plate 75. Fig. 8.

Character of the Species.

*Erigeron uniflorum.*

The Stalk supports only one Flower, the Cup of which is woolly.

Fig. 8. a.

THIS also is an European, native of the German hills, and most common at the foot of the Swiss mountains. The Stalk is brown: the Leaves are of a dark and strong green: the Flower, which singly terminates the Stalk, is crimson; and is set off extremely by the contrast of colour in the Cup; for that is white and woolly.

## 9. CILLATED SIMSON.

Plate 76. Fig. 9.

Character of the Species.

*Erigeron gramineum.*

The Leaves are narrow and linear: their Edge is rough, and armed with a kind of stiff hairs. The Stalk supports only one Flower.

Fig. 9. a. b.

THIS is a native of Siberia, a dwarfish Plant, which the cold seems to have stunted and half killed. The Stalk is of a brownish green;



*Single flower'd. Simson.*



*Alternate flower'd. Simson.*



*Hairy-cap'd. Simson.*



*One flower'd. Simson.*





SIMSON.

Pl. 76.



9  
Ciliated Simson?



10  
(Golden Simson?)



11  
Edged Simson?



12  
Woody Simson?



green: the Leaves are narrow, like grass, but not of that pleasing green: their edges are brown and rugged, and there always are a multitude of dead and dry ones, which surround the center of the Tuft when they are fresh. The Flower is white, with a very slight dash of a faint crimson. It blows in August.

## 10. GOLDEN SIMSON.

Plate 76. Fig. 10.

Character of the Species

*Erigeron ficulum.*

The Cup is longer than the Flower.

Fig. 10. *a.*

THIS is an Annual, a pretty little Plant, native of Sicily, and other of the warm parts of Europe; flowering in August. The Stalk is naturally crimson: the Leaves are of a very dark green, almost blackish; and, the contrast of these two strong colours is very pleasing. The Flowers are of a perfect golden yellow; but they do not make any great figure: for, besides the narrowness and position of the rays, The Cup exceeds them in Length, and in a manner mixes its brown Scales among them.

## 11. EDG'D SIMSON.

Plate 76 Fig. 11.

Character of the Species.

*Erigeron camphoratum.*

The Leaves are downy, and edged with a thin membranous substance.

Fig. 12. *a, b.*

THIS is an annual, native of Virginia, flowering in September. The Stalk is green, upright, and two foot and a half high: the Leaves are of a very delicate green naturally; but there is a whiteness over them from the down, with which they are coated, and there is also a singular aspect from their cartilagenous edge. The Flowers are small.

VOL. II.

C c c

12. WOODY

## 12. WOODY SIMSON.

Plate 72. Fig. 12.

Character of the Species.

*Erigeron tuberosum.*

The bottom of the Stalk is woody : the Leaves are lanced and narrow.

Fig. 12. *a b*

THIS is a Perennial, native of Syria, and of some parts of Europe. It flowers in August. The Stalk is woody but slight and short, and the young Branches are green. The Leaves are of a good green, but with some yellowness : the Flowers are large, and are of a very fine yellow.

## G E N U S XVII.

## S A N D W E E D.

## A N A C Y C L U S.

Character of the Genus.

The Cup is hemispheric: the Scales are flat, oval pointed, and very numerous. The Rays have a flattened tubular Base, and are undivided at the Ends.

Fig. 77. *a a b c.*

## 1. RECOMPOUND SANDWEED

Plate 77. Fig. 1.

Character of the Species.

*Anacyclus Creticus.*

The Leaves are divided and subdivided into flattened Segments.

Fig. 1. *a b.*

THIS is an Annual, native of the islands of the Archipelago, and flowers in July. The Stalks are weak, and lie upon the ground. The Leaves are of a pale but very delicate green : the Flowers are white,



SAND-WEED.

Generic Character.



Ricompound Sandweed.



Pinnated Sandweed.



Golden Sandweed.



white, with a yellow disk : the Plant rarely exceeds ten inches in the length of the Stalk, and as that is for the most part laid upon the ground : so that the Plant, tho' singular, makes but little figure.

## 2. PINNATED SANDWEED.

Plate 77. Fig. 2.

Character of the Species.

*Anacyclus Orientalis.*

The Leaves are winged, and the Leaflets are cut into bristly Segments.

Fig. 2. *a b.*

THIS also is an Annual, native of the East ; a Plant of more singularity than beauty. The Stalk is red toward the ground : the Leaves are of a delicate but faint green : the Flowers are large, open, and white with a yellow Disk.

## 3. GOLDEN SANDWEED.

Plate 77. Fig. 3.

Character of the Species.

*Anacyclus Valentinus.*

The Leaves are recompound, and their Segments are long and narrow.

Fig. 3. *a b.*

THIS is an Annual, native of Spain, and flowers in July. The Stalk is firm, upright, a foot and a half high, and of a very fine though pale green. The Leaves have the same fresh and pleasing colour ; but there is a cast of whitish over them ; for they are sprinkled with slight and small hairs. The Flowers are large, and of a perfect gold yellow.

THIS Species is often destitute of Rays : it will be figured in that condition in our succeeding Class.

G E N U S

## GENUS XVIII.

## PARDWORT.

## ARNICA.

Character of the Genus.

The Cup is flat and spreading: the Scales are long, intermixed, and equal, but have three distinct insertions at the Base. The Rays have filaments without Antheræ.

Plate 78. *abc*.

## 1. PAIR'D-LEAVED PARDWORT.

Plate 78. Fig. 1.

Character of the Species.

*Arnica Montana.*

The Leaves are oval, undivided, and placed in pairs.

Fig. 1. *ab*.

THIS is a Perennial, native of the European hills, and flowers in June. The radical Leaves are large and pale: the Stalk is two feet high: and one Flower usually crowns it at the top. This is large, and of a gold yellow.

## 2. ALTERNATE PARDWORT.

Plate 78. Fig. 2.

Character of the Species.

*Arnica scorpioides.*

The Leaves are placed alternate, and are sharply notched at the Edges.

Fig 2. *ab*.

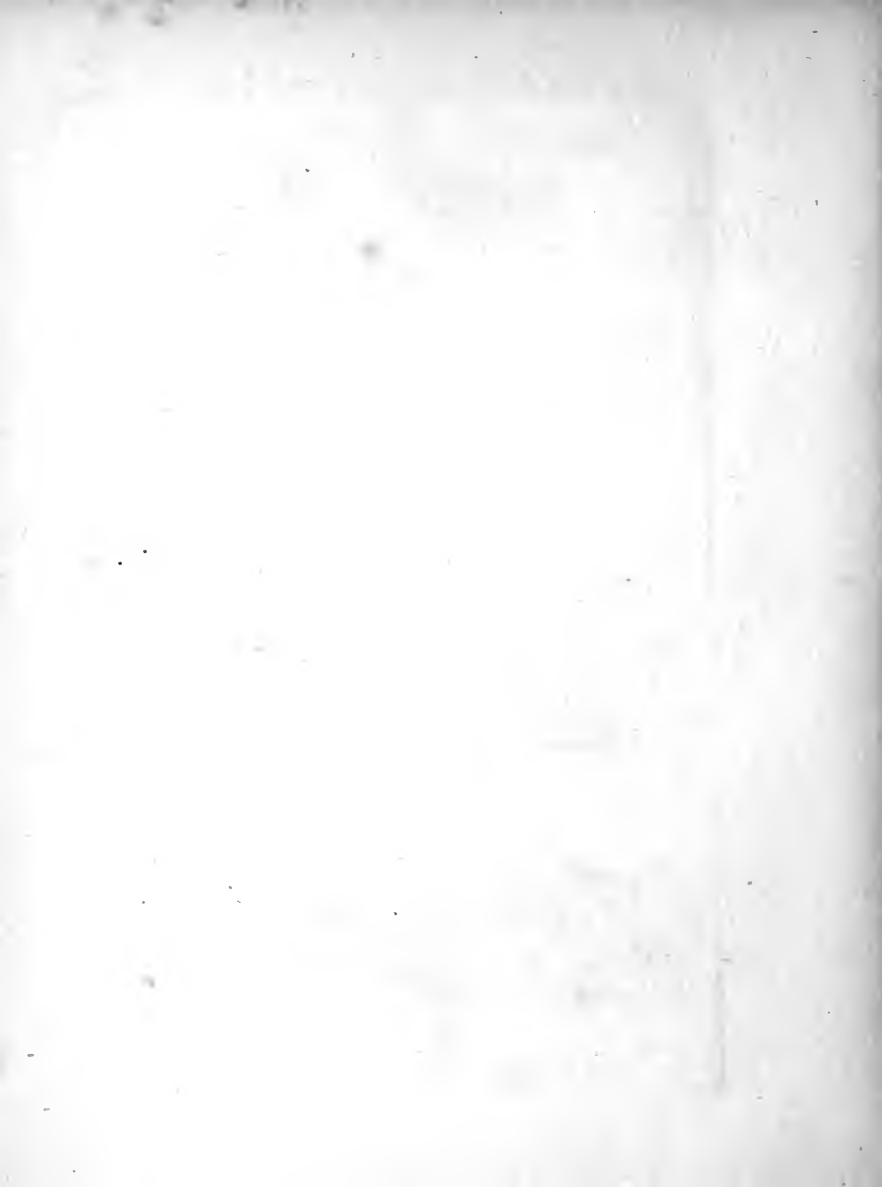
THIS is a Perennial also, a hardy Plant, native of the hills of Germany and Switzerland, and flowers in May. The Leaves are of a pale green, somewhat downy, soft, and velvety to the touch: the Stalk is tender, downy, and about ten inches high: the Leaves on it have the same pale colour, and the same softness. The Flowers are large, and of a fine yellow.

## 3. LANCED

PARDWORT.

Pl. 78.







## 3. LANCED PARDWORT.

Plate 78. Fig. 3.

Character of the Species.

*Arnica maritima.*

The Leaves are lanced, and the lower ones jagged. The Stalk has many Flowers.

Fig. 3. *abc.*

THIS is a native of North-America, a robust and stout Plant of four feet high; flowering in August and September: it loves a moist soil, and thrives best where it is in the reach of the influence of salt water. The Leaves are of a bluish green: the Flowers are large, and of a fine yellow.

## 4. EGG-LEAV'D PARDWORT.

Plate 78. Fig. 4.

Character of the Species.

*Arnica crocea.*

The Leaves are egg-shaped, and indented, and are smooth on the surface.

Fig. 4. *a.*

THIS is a native of the Cape of Good Hope; a singular and not inelegant Plant. The Stalk is green and weak, though somewhat hard: it seldom rises to more than a foot and a half; and the Leaves are of a greyish green; and the Flowers of what we call an orange scarlet, large and very beautiful.

## 5. PINNATIFID PARDWORT.

Plate 78. Fig. 5.

Character of the Species.

*Arnica gerbera disc.*

The Leaves are pinnatifid, and the Segments are rounded.

THIS also is a native of the Cape, a Perennial flowering in August. The Stalk is brown; The Leaves are covered with a kind of down, of the colour of rust of iron. The Flower is yellow.

## 6. FINE CUT PARDWORT.

Plate 78. Fig. 6.

Character of the Species.

*Arnica coronopifolia.*

THIS also is a native of the Cape; and flowers in Autumn. The Stalk is weak: the Leaves are of a dusky green, and the Flower is of a pale yellow.

## G E N U S XIX.

## S C E N T W O R T.

## E R I O C E P H A L U S.

Character of the Genus.

The Cup spreads: the Scales are oval, and few in number. The inner range are flat; the second a little hollowed, and the outer more hollowed: the Rays are few.

Plate 79. *a b c.*

Of this Genus we know only one Species.

## CLUSTERY LEAV'D SCENTWORT

Plate 79. Fig. 1.

Character of the Species.

*Eriocephalus Africanus.*

The Leaves are three pointed, and grow in Clusters.

Fig. 1. *a. b.*

THIS is a woody perennial Plant, native of the Cape of Good Hope, and flowers in October. The Stalk is brown, and a yard high; the Leaves are white and downy: they grow thick clustered together, and are irregular in their form, some being simple, and others cut into three or five parts at the end: the Flowers are of a pale but delicate crimson: they stand upright and hollow.

## G E N U S

SCENTWORT.

Pl. 79.

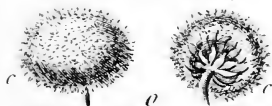


Generic Character.



Clustery lowit. Scentwort.

SPHEREWORT.



Generic Character.



Ulated Spherewort.



## G E N U S XX.

## S P H E R E W O R T.

## S P H Æ R A N T H U S.

Character of the Genus.

The Cup is globose: the Scales are sharp-pointed and permanent: the Florets are collected in small clusters within their general Cup, and these Clusters have also their Cup composed of five Scales: the Rays are so short that they are scarce visible.

Plate 79. *o a b c.*

OF this Genus we also know only one Species.

## 1. ALATED SPHEREWORT.

Plate 79. Fig. 2.

GLOBE FLOWER.

Character of the Species.

*Sphæranthus alatus.*

The Leaves stand alternate, and run down the Stalk with a large Border.

Fig. 2. *a b c.*

THIS is a native of the East-Indies, a very beautiful as well as singular Plant; flowering in July and August: the Stalk is of a pale green, tender, and a foot high: the Leaves are of a very strong and very dark green: they run down the Stalk with Films of the same colour, which have a very beautiful appearance. The Flowers are large and crimson.

## G E N U S XXI.

## G U M T H I S T L E.

## A T R A C T Y L I S.

Character of the Genus.

The Cup is oval: the Scales are very numerous, lanced, and convergent.

Plate 80. *a b c.*

## 1. W O O D Y G U M T H I S T L E.

Plate 80. Fig. 1.

Character of the Species.

*Atractylis fructicosa.*

The Leaves are oblong, dented, oval, and prickly: the Stalk is woody.

Fig. 1. *a b.*

THIS is a Perennial, native of the Cape of Good Hope; a very beautiful Plant, flowering in August. The Stem is woody and brown, and the young Shoots are tender: the Leaves are of a pale but pleasing green, and the Flowers are of a gold yellow: they stand singly at the tops of all the Branches. The Plant is a yard high, and spreads into a handsome figure.

## 2 S T A L K L E S S G U M T H I S T L E.

Plate 80. Fig. 2.

Character of the Species.

*Atractylis gummifera.*

The Flower rests upon the ground: the Leaves which surround it are prickly.

Fig. 2. *a b.*

THIS is a Perennial, native of the warmer parts of Europe, and of the East, a very singular Plant. The Leaves rise only from the Root; for the Plant is wholly destitute of Stalks: they are of a fine strong

# GUMM THISTLE.

Pl. Sc.



Generic Character.



Woolly Gumm Thistle.

Stalked Gumm Thistle.



Silly headed Gumm Thistle.



Sugar Gumm Thistle.





strong green, and very beautiful. The Flower appears in the center, resting upon the ground : it is large and elegant : the Rays are white, and the Disk is yellow. This Plant abounds with a gummy juice ; whence the name of the Gum Thistle is very improperly added to it.

### 3. LEAFY-HEADED GUM THISTLE.

Plate 8o. Fig. 3.

Character of the Species.

*Atractylis humilis.*

The Leaves are finned, and there is a spreading leafy head under the Flower.

Fig. 3. *ab.*

THIS is a Perennial, native of the southern parts of Europe and of the East, flowering in July. The Stalk is a foot and a half high, green, but stained with crimson toward the Base. The Leaves are of a dark, shining, green : the Flowers are large, and of a delicate crimson ; two or three of these crown the Stalk ; and they gain fresh beauty from the Leafy Involucrum, or mantle which is placed under them.

### 4. LINEAR GUM THISTLE.

Plate 8o. Fig. 4.

Character of the Species.

*Atractylis cancellata.*

The Leaves are linear, and dented.

Fig. 4. *ab.*

THIS is an Annual, a little Plant, native of Spain and Italy : it flowers in August. The Stalk is weak, green, and not more than five inches high : the Leaves are of a strong green, but with somewhat of a greyish tinge. The Flowers are crimson ; their Rays are often wholly wanting ; but the whole Surface of the Cup being netted, has an elegant appearance. It flowers in August.

## G E N U S XXII.

## R O U G H W E E D .

## A M E L L U S .

Character of the Genus.

The Cup is rounded; the Scales are roughly set together; oblong, hard, nearly equal, and pointed; the Rays are numerous, and not at all cut or divided at the end.

Plate 81. *a b*.

## 1. SCATTERY ROUGHWEED.

Plate 81. Fig. 1.

Character of the Species.

*Amellus lychnites*.

The Leaves are placed in pairs; the Flowers stand scattered over the tops of the Branches; one standing on each Footstalk.

Fig. 1. *a b*.

THIS is a Biennial, native of Jamaica; a very pretty Plant: the Stalk is firm, and of a deep green, often tinged with crimson half way up from the ground. The Leaves are of a strong green, but with some natural mixture of a brownish tinge, and often something of the redness of the Stalk. The Flowers are large, and of a fine yellow: their Cups are brown, especially at the edges of the Scales. It flowers in August.

## 2. UMBRELLA'D ROUGHWEED.

Plate 81. Fig. 2.

Character of the Species.

*Amellus umbellatus*.

The Leaves are woolly underneath: the Flowers are spread in manner of an umbrella.

Fig. 2. *a b*.

THIS also is a Biennial, native of Jamaica; and flowers all the latter part of the Summer. The Stalk is upright, firm, and of a yellowish green;

8. ROUGH-

WEED.

1766



LEAFWORT.





green ; but softened by a slight down. The Leaves are pale on the upper-side, and whitish and downy underneath. The Flowers stand in a large flat cluster on the top of the Stalk, in manner of an umbrella.

## G E N U S XXIII.

## L E A F W O R T.

## P E C T I S.

Character of the Genus.

The Cup is cylindric ; its Scales grow together, and become foliaceous and unequal. The Rays are few and divided lightly at the top.

Plate 81. *o o a b.*

## 1. E D G ' D L E A F W O R T.

Plate 81. Fig. 3.

Character of the Species.

The Leaves are linear, and have a rough edge, with short stiff hairs.

Fig. 3. *a b.*

THIS is a Biennial, native of Jamaica, and Flowers in July and August. The Stalk is of a pale green : the Leaves have a brown edge, and the Flowers are yellow.

## 2. N A K E D L E A F W O R T.

Plate 81. Fig. 4.

Character of the Species.

*Pectis linnifolia.*

The Leaves are narrow, but simple, even, and unarmed at the edge.

Fig. 4. *a b.*

THIS also is a native of Jamaica, a Biennial ; flowering in August. The Stalk is usually crimson toward the lower part : the Leaves are of a pale but pleasing green : the Flowers are of a fine yellow.

G E N U S

## G E N U S XXIV.

## WHITEWEED.

## CARPESIMUM.

Character of the Genus.

The Cup is short and umbilicated ; its Scales are narrow, and nearly equal, and it is surrounded at the Base by a leafy involucre, or crown.

Plate 82. *a a b*.

## 1. HEADED WHITEWEED.

Plate 82. Fig. 1.

Character of the Species.

*Carpesium cernuum*.

The Flowers stand only on the top Branches, and they droop a little.

Fig. 1. *a b*.

THIS is a Perennial, native of Italy, and flowers in August. The radical Leaves oval, wrinkled, a little downy, soft to the touch, and of a pale green. The Stalk is a foot and a half high, and is also downy, whitish, and soft to the touch : the Flowers grow only on the tops of the Branches, which thicken where they are inserted : they are of a fine pale yellow : sometimes naked.

## 2. SIDE-FLOWERED WHITEWEED.

Plate 82. Fig. 2.

Character of the Species.

*Carpesium abrotanoides*.

The Flowers rise in the bosoms of the Leaves, all up the sides of the Stalk.

Fig. 2. *a*.

THIS is an Annual, native of China ; and flowers in August. The Stalk is firm, hard, and brown. The Leaves are of a dusky green : the Flowers are of a very pale yellow, and are surrounded by dusky Leaves. Sometimes they leave Rays, and sometimes after the manner of the former they are naked.

G E N U S

WHITE WEED.

Pl. 62.



Headed white weed.

RED-CUP.



Side flower'd  
White weed?



Large flower'd  
Red-Cup?







## G E N U S XXV.

## R E D C U P.

## P O L Y M N I A.

Character of the Genus.

The Cup has three ranges of leafy Scales; three in each of the outer, and four in the inner range: all inferted almost in one place at the Base, and appearing nearly as a simple Series.

Plate 82, Fig. 1. *a a b*.

OF this Genus we know only one Species.

## I. LARGE FLOWER'D RED CUP.

Plate 82. Fig. 3.

Character of the Species.

The Scales of the Cup are nearly equal to the Rays in length.

Plate 82. Fig. 3. *a a b*.

THIS is a Perennial, native of North-America, and flowers late in Autumn. The Stalk is firm and hard, red toward the ground, but green on the upper part. The Leaves are of a fine but not strong green, and the Flowers are yellow. The Cup often gets a tinge of red, which shews this in a very agreeable opposition. The Rays are often in part wanting, and sometimes entirely.

## O R D E R V.

With the general Cup fringed.

## G E N U S I.

## GROUNDSEL.

## SENECIO.

Character of the Genus.

The Cup is formed of one Row of long upright Scales, and has at its Base a Series of short dry Scales which form the Fringe.

Plate 83. *a a b.*

## 1. PINNATIFID GROUNDSEL.

Plate 83. Fig. 1.

Character of the Species.

*Senecio triflorus.*

The Leaves have no Footstalks: they are irregularly pinnatifid. The Rays are very short.

Fig. 1. *a b.*

THIS is an Annual, native of Egypt, a Plant of no great beauty; flowering in July and August: the Stalk is firm and reddish: the Leaves are of a faint green: the Flowers are of a pale yellow, and they appear almost naked, the Rays are so extremely short: yet short as they are, they turn back a little.

## 2. AMPLEXICAUL GROUNDSEL.

Plate 83, Fig. 2.

Character of the Species

*Senecio Egyptianus.*

The Leaves are sinuated, and embrace the Stalk: the Rays are nipt.

Fig. 2. *a b.*

THIS also is an Annual, native of Egypt, and flowers all Summer: it is a foot and a half high: the Stalk is green and tender: the

3. GROUND-SELL

Pl. 83.

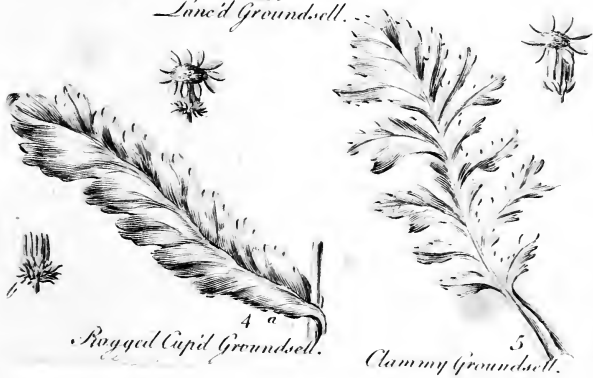


Generic Character.



*Pinnatifid Groundsell.*

*Lanc'd Groundsell.*



*Ragged Cupid Groundsell.*

*Clammy Groundsell.*



the Leaves are of a good green : the Flowers are yellow : the Rays very bright and delicate : the Disk somewhat dusky.

### 3. LANCED GROUNDSEL.

Plate 83. Fig. 3.

Character of the Species.

*Senecio lividus.*

The Leaves are lanced and ferrated, and slightly embrace the Stalk.

Fig. 3. *a b.*

THIS is an Annual, native of Spain, and flowers in July and August. The Stalk is upright but tender : the Leaves are of a dull and blackish green : the Flowers are yellow ; but their Rays are short, and they have no great beauty.

### 4. RAGGED CUP'D GROUNDSEL.

Plate 83. Fig. 4.

Character of the Species.

*Senecio tribolus.*

The Leaves embrace the Stalk, and are deeply sinuated, or divided in three parts : the Cup is ragged.

Fig. 4. *a b.*

THIS is an Annual, native of Spain, and flowers in Autumn. The Stalk is firm, brown, and striated, and is a foot and a half high. The Leaves are of a deep but not unpleasant green. The Flowers are yellow.

### 5. CLAMMY GROUNDSEL.

Plate 83. Fig. 5. STINKING GROUNDSEL.

Character of the Species.

*Senecio viscosus.*

THIS is an Annual, native of our own country, and common on dry banks about Blackheath, Hampstead, and here at Baywater. It is two feet high : the Stalk is greyish and tender : the Leaves are of a greyish green, and the Flowers of a pale yellow. The whole Plant has a remarkably strong smell ; Nature has given this as a testimony of its great virtues. It is now under trial in some cases of importance ;

importance; and there is reason to expect the event will be worth the notice of the public.

### 9. DOUBLY JAGG'D GROUNDSEL.

Plate 84. Fig. 6. RAGWORT GROUNDSEL.

Character of the Species.

*Senecio sylvaticus.*

The Leaves are smooth; they are deeply cut in the pinnatifid manner, and the Segments are sharply cut again.

Fig. 6. *a b.*

THIS is a Biennial, native of our thickets, and common by road sides, where the hedges run in upon the waste: it is a robust Plant, a yard high. The Stalk is red at the Base: the Leaves are dark green, but hoary underneath: the Flowers bright yellow.

### 7. BLUE LEAV'D GROUNDSEL.

Plate 84. Fig. 7.

Character of the Species.

*Senecio glaucus.*

The Leaves are cut into long, simple, narrow Segments, in the pinnatifid manner.

Fig. 7. *a b.*

THIS is an Annual, native of Egypt, a singular, and not unhand-some Plant: it is a foot or more in height: the Leaves are of a fine blue green; and the Stalk has the same tinge, but paler: the Flowers are of a fine yellow.

### 8. LONG FOOTSTALKED GROUNDSEL.

Plate 84. Fig. 8.

Character of the Species.

*Senecio hastatus.*

The Leaves are pinnatifid, and have very long Footstalks, which embrace the Stalk.

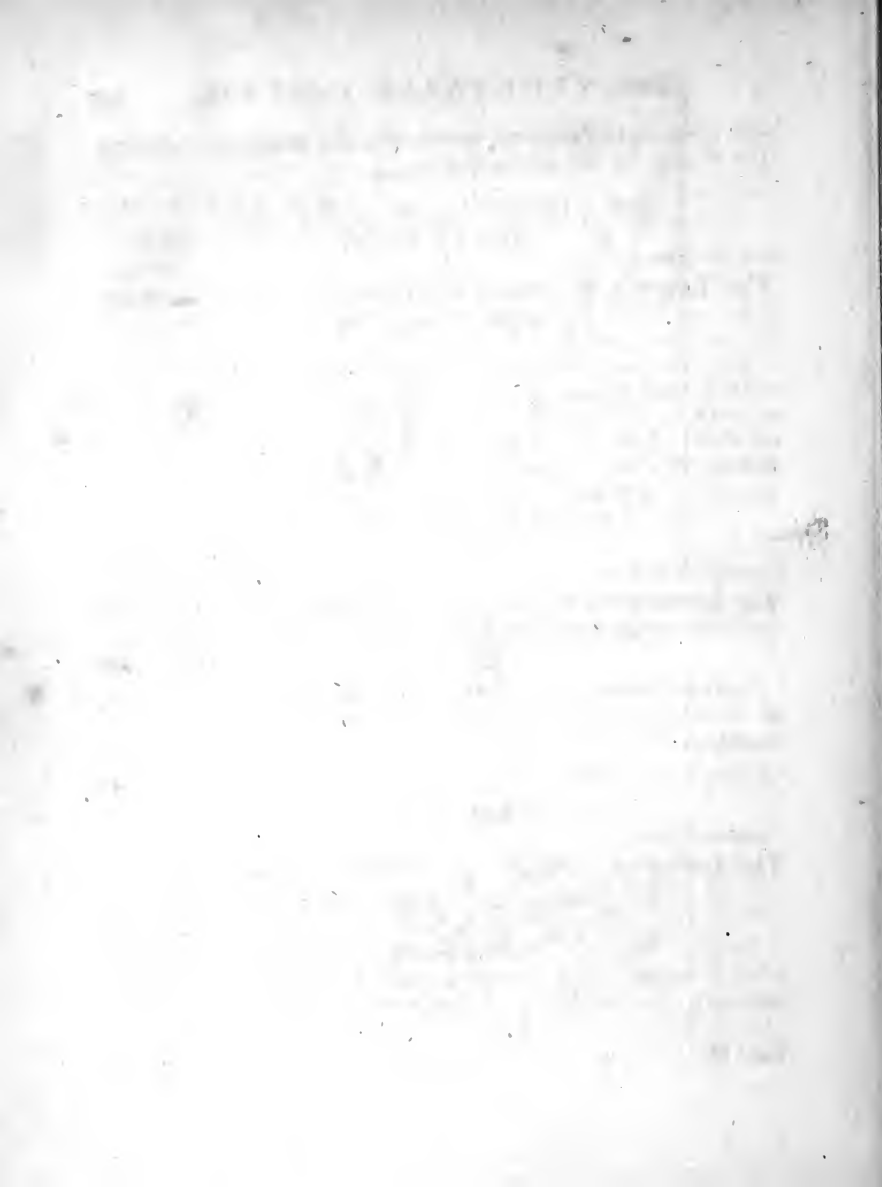
Fig. 8. *a b.*

THIS is a Perennial, native of Africa, a singular and very beautiful Plant: the Stalk is hard and brown: the Leaves are of a dull green, with

GROUNDSEL.

Pl. 84.







with some tinge of the same brown about the middle rib and edges. The Flowers are of a gold yellow.

### 9. CRIMSON GROUNDSEL.

Plate 84. Fig. 9.

Character of the Species.

*Senecio elegans.*

The Leaves are broad and pinnatifid: the Flowers are large and crimson.

THIS is a Biennial, native of the Cape of Good Hope: but is one of those Plants which, tho' from so remote a quarter, bear the open air with us all Summer. It is two feet high, and spreads into a multitude of Branches: the Leaves are of a dead green, and the Flowers of a most beautiful crimson: it flowers in August.

### 10. OPEN-LEAV'D GROUNDSEL.

Plate 84, Fig. 10.

Character of the Species.

*Senecio squalidus.*

The Leaves are pinnatifid, and the Segments are few, narrow, and placed open and far asunder.

Fig. 10. *a b.*

THIS is a native of Italy and Spain, a Plant of no great beauty, an Annual, flowering in July and August. The Stalk is brown: the Leaves are of a dusky and unpleasing green: the Flowers are yellow.

### 11. HOARY GROUNDSEL.

Plate 84. Fig. 11.

Character of the Species

*Senecio Scanarenfis.*

The Leaves are hoary and pinnatifid, and their Segments are cut and notched again.

Fig. 11. *a b.*

THIS is a Perennial, native of many parts of the north of Europe, a tall Plant, flowering in August: the Leaves are of a Pale green, and hoary: the Flowers are of a bright and delicate yellow.

## 12. WOOLLY GROUNDSEL.

Plate 85. Fig. 12.

Character of the Species.

*Senecio incanus.*

The Leaves are lightly pinnatifid, and woolly on both sides.

Fig. 12. *a b.*

THIS is a Biennial, native of the mountainous parts of Europe, and flowers in September: it is a foot and a half high: the Stalks are whitish, the Leaves are also of a whitish colour, and soft and woolly to the touch: the Flowers are yellow.

## 13. MULTIFID GROUNDSEL.

Plate 85. Fig. 13.

Character of the Species.

*Senecio Abrotanifolius.*

The Leaves are cut into a multitude of narrow Segments in the pinnatifid form.

Fig. 13. *a b.*

THIS is a Biennial, native of the Alps and Pyrenæan mountains, and other places in Europe, but not wild here: it flowers in July and August: the Stalk is reddish: the Leaves are of a pale green, and the Flowers are yellow.

## 14. TWICE WING'D GROUNDSEL.

Plate 85. Fig. 14.

Character of the Species.

*Senecio Canadensis.*

The lower Leaves are twice winged, the upper simply winged, and the Leaflets linear.

Fig. 14. *a b.*

THIS is a Perennial, native of North-America; a singular and not unelegant Plant, flowering in September. The Stalk is upright and hollow, and two feet high: the Leaves are of a pale, but somewhat dusky green: the Flowers are yellow, and of a considerable size.

## 15. RAGWORT

## 15. RAGWORT GROUNDSEL.

Plate 85. Fig. 15.

COMMON RAGWORT.

Character of the Species.

Senecio Jacobæa.

The Leaves are broad, divided and subdivided, with rounded serrated Segments.

THIS is an Annual, native of our country, and common every where in waste grounds, and on ditch banks, covering them with its spreading heads of golden Flowers all Autumn : it is two feet and a half high : the Stalk is reddish : the Leaves are of a good but not glossy green, and the Flowers are of a strong and fine yellow.

## 16. GOLDEN GROUNDSEL.

Plate 85. Fig. 16.

Character of the Species.

Senecio Aureus.

The radical Leaves are hearted, and have Footstalks : those on the Stalks are pinnatifid.

Fig. 16. a b.

THIS is a very elegant Plant, a Perennial, native of Virginia, and flowers in June : it is two feet high : the Stalk is purplish : the Leaves are of a deep green, with some tinge of brown : the Flowers are very beautiful, and of a fine gold yellow.

## 17. SWORD-LEAV'D GROUNDSEL.

Plate 86. Fig. 17.

Character of the Species.

Senecio paludosus.

The Stalk is simple ; the Leaves are oblong, sharp pointed, sharply serrated, and hoary underneath.

Fig. 17. a b.

THIS is a Perennial, native of the sea coasts of many parts of Europe, a tall and very fine Plant : the Stalk is reddish : the Leaves are of a fine green on the upper side, and whitish underneath : the Flowers are yellow.

## 18. TWICE

## 18. TWICE SERRATED GROUNDSEL.

Plate 86. Fig. 18.

Character of the Species.

*Senecio nemorensis.*

The Leaves are doubly serrated, lanced, and hoary underneath, and the Stalk is branched.

Fig. 18. *a b.*

THIS is a Perennial, native of Germany, and flowers in August: the Stalk is brown: the Leaves are of a dusky green on the upper side; and the Flowers are yellow.

## 19. SARACEN GROUNDSEL.

Plate 86. Fig. 19.

*SARACENS CONSOUND.*

Character of the Species.

*Senecio Saracenicus.*

The Leaves are lanced, serrated, and smooth on both sides. The Flowers are clustered.

Fig. 19. *a b.*

THIS is a Perennial, native of the North of England, and of the Swiss mountains; a stately and elegant Plant, flowering in August. The Stalk is green and six feet high. The Leaves are of a delicate green, and elegantly serrated: the Flowers are small and yellow.

## 20. FLESHY GROUNDSEL.

Plate 86. Fig. 20.

Character of the Species.

*Senecio halimifolius.*

The Leaves are egged, fleshy, and dented. The Stalk is woody.

Fig. 20. *a b.*

THIS is a Perennial, native of the Cape of Good Hope, and flowers in August. The Stalk is woody and brown: the Leaves are thick, fleshy, and of a blue green. The Flowers are of a fine yellow.

## 21. PRICKLY

GROUNDSEL.

Pl. 85.



12  
Woolly  
Groundsel.

13  
Multijid  
Groundsel.

14  
Swiss ringed  
Groundsel.

15  
Ragwort  
Groundsel.



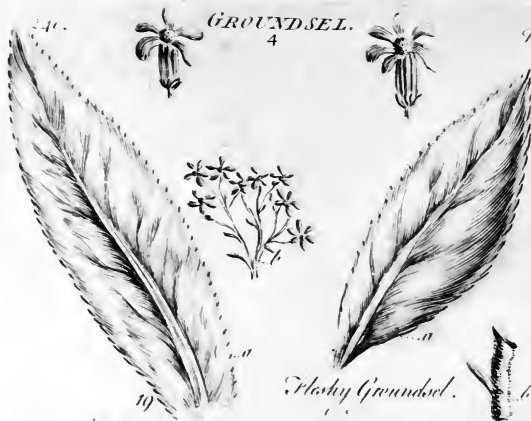
16  
Golden Groundsel.

17  
Sword-leaved  
Groundsel.

18  
Swiss serrated  
Groundsel.







19 *Sarcocolla Groundsel.*

20 *Hairy Groundsel.*



21 *Prickly Groundsel.*

22 *Rugged Groundsel.*

23 *Lion's Head Groundsel.*



## 21. PRICKLY GROUNDSEL.

Plate 86. Fig. 21.

Character of the Species.

*Senecio Byzantinus.*

The Leaves are ferrated, and the points of the teeth are thorny.

Fig. 21. *a.*

THIS is a native of the East, a tall and stately Plant, and flowers in July : it is four feet high : the Stalk is pale green : the Leaves are of a good green : the Flowers are yellow, and very beautiful.

## 22. RUGGED GROUNDSEL.

Plate 86. Fig. 22.

Character of the Species

*Senecio rigidus.*

The Leaves are hearted, bent, oblong, rough, and rugged; and the Stalk is woody.

Fig. 22. *a b.*

THIS is a native of the Cape, a woody branching Plant of four feet high, and flowers in August. The Leaves are of a good green on the upper side, and pale below. The Flowers are of a fine gold yellow.

## 23. ARROWED GROUNDSEL.

Plate 86. Fig. 23.

Character of the Species.

*Senecio ilicifolius.*

The Leaves are arrowed, and the Stalk is woody.

Fig. 23. *a b.*

THIS also is a Perennial, native of the Cape, and flowers in August : the Stalk is brown : the Leaves are whitish underneath, and the Flowers are yellow.

## 24. WATER GROUNDSEL.

Plate 86. Fig. 24. WATER RAGWORT.

Character of the Species.

*Senecio aquaticus.*

The radical Leaves are harped; the upper one pinnatifid.

Fig. 24. *a b.*

THIS is a Biennial, native of our ditch sides, and flowers in July. It is two feet high: the Leaves are of a fine fresh green; and the Flowers are yellow.

## G E N U S II.

## N O O N - F L O W E R.

## M E R I D I A N A.

Character of the Genus.

The body of the Cup is formed of a single row of upright, oblong, pointed scales. The Fringe consists of two ranges of large leafy Films, which turn their points downward.

Plate 87. *a a b.*

OF this Genus there is but one known Species, a very singular and noble Plant. I have named it from the time of day when its elegant Flower opens, which is but for an hour, or a little more, at noon, and that only in good weather.

## C H E Q U E R ' D N O O N - F L O W E R.

Character of the Species.

The Leaves are some simply lanced, and others pinnatifid: the base of the Flower is beautifully chequered.

Fig. 12. *a b c.*

THIS is a Perennial, native of the Cape of Good Hope, but bears the free air with us all Summer. The Stalks are thick and tender: they lie upon the ground, and are ten or twelve inches long

NOON-FLOWER.



Generic Character.



Chequer'd  
Acon Flower.





long, and usually redish. The Leaves are of a very delicate strong green on the upper side, and white underneath. The Flower is very large, and of exceeding beauty. Its colour is an orange scarlet, chequered at the base with black and white in very regular Figures. It flowers in June, and is easily encreased by cuttings.

THIS Plant has been known but a few years in Europe ; and the Gardeners have supposed it an *Arctotis* ; but it has nothing of that membranaceous edge to the upper scales of the Cup, which is the great distinctive character of that Genus, nor can by any means be numbered with those Plants.



THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

1950-1951

PHYSICS 301

LECTURE

1950-1951

PHYSICS 301

PHYSICS 301

# I N D E X.

TO THE

## SECOND VOLUME.

### A

<b>A</b> CHILLÆA, _____	Page	169
African Marygold, _____	77	
Air, its effects, _____	3	
Amellus, _____	198	
Amentum, _____	33	
Anacyclus, _____	190	
Anemonospermus, _____	156	
Anthemis, _____	102	
Anthera, _____	34	
Appendages, _____	17	
Arctotis, _____	156	
Arnica, _____	192	
Artich oak, Jerusalem, _____	125	
After, _____	141	
Aste, Blue, _____	100	
Attractylis, _____	196	
Austrian Ptarmica, _____	162	

### B

<b>B</b> ASE Sunflower, _____	92
Bellis, _____	97
Bidens, _____	85

Birdweed,	_____	_____	Page
Boerhaave,	_____	_____	93
Boylweed,	_____	_____	49
Broadweed,	_____	_____	127
Bubonium,	_____	_____	92
Buphthalmum,	_____	_____	127
Button.	_____	_____	126
	_____	_____	34

### C

<b>C</b> ÆLESTINA, _____	100
Cæfalpinus, _____	41
Calendula, _____	110
Capsule, _____	35
Carpesium, _____	200
Catkin, _____	33
Chamæmilla, _____	102
Chamæmile, _____	102
Chamæmile, wild, _____	105
Chamæmile, sweet, _____	107
Characters of Cups, _____	32
Chives, _____	34
Chrysanthemum, _____	134
Chrysogonum, _____	90
Classics, Table of _____	70
Coltsfoot, _____	

# I N D E X.

	Page
Coltsfoot,	87
Confound Saracens,	208
Caeleſtina,	100
Conyza,	158
Coreopis,	115
Corn Marygold,	134
Cotula,	109
Crown Seed,	156
Cup, its Forms,	32

## D

<b>D</b> AISY,	—	—	97
Daify, great,	—	—	135
Determination of Leaves,	—	—	2
Direction of Leaves,	—	—	26
Doronicum,	—	—	95
Dwarf Sunflower.	—	—	112

## E

<b>E</b> ARTH, its Effects,	4
Elecampane,	130
Elfwort,	129
Erigeron,	185
Eriocephalus,	194
Eternal Flower.	162

## F

<b>F</b> ALL of Leaf,	11
Farina,	34
Feverfew,	167
Filaments,	34
Fire, its effects,	1
Fleabane, sweet,	177
Fleabane,	158, 129, 177
Flowers of Plants,	32
Flowers, double,	38
Flowers, proliferous,	38
Flower Stem,	17
Forkweed,	94
French Marygold,	77

		Page
Fruification, parts of,	—	32
Fruit, —	—	38
Fulcra of Plants,	—	17

## G

<b>G</b> E M E L L A ,	—	119
Germ,	—	34
Globeflower,	—	195
Gleditch,	—	64
Golden Rod,	—	177
Gortera,	—	141
Groundsell,	—	202
Gum Thistle,	—	196

## H

<b>H</b> ALLER,	60
Hardfeed,	89
Heart-feed,	117
Heat, its effects,	1
Helenia,	98
Helenium,	130
Helianthus,	122
Hemp-Agrimony,	85
Herman,	43

## J

**J**ERUSALEM, Artichoak, — 125  
Inula, — 129

## L

<b>L</b> E A F, the Fall,	—	11
Leaf-wort,	—	199
Leaves,	—	19 to 32
Leaves, curl'd,	—	37
LEAVES, their Difference according to		
'Their Circumference,	—	19
— Angles,	—	20
— Composition,	—	26
	—	Margins,



— Margins,	—	Page 23
— Sides,	—	25
— Sinus's,	—	20
— Situation,	—	29
— Surface,	—	24
Leopard's Bane,	—	95
Lepia,	—	166
Linnæus his Method,	—	53
Luxuriances,	—	37

M

<b>M</b> AGNOL,	—	52
— Maidweed,	—	91
Marygold,	—	110
Marygold, African,	—	77
Marygold, French,	—	77
Matricaria,	—	167
Mayweed,	—	105
Mayweed,	—	109
Melampodium,	—	92
Milk-ria,	—	94
Millefolium,	—	169
Meridiana,	—	210
Morison his Method,	—	41

N

<b>N</b> ECTARIUM,	—	34
— Noon-flower,	—	210

O

<b>O</b> STEOSPERMUM,	—	89
— Othonna,	—	79 to 84
Oxeye,	—	126

P

<b>P</b> ARDWORT,	—	192
— Parthenium,	—	91
Parts of Plants,	—	13

Pædis,	—	Page 199
Pellitory of Spain,	—	107
Perianthium,	—	32
Petal, its Forms,	—	33
Pistill,	—	34
Plants, their Parts,	—	13
— Cup,	—	32
— Frustrification,	—	32
— Fruit,	—	34
— Petals,	—	34
Pod,	—	38
Pointal,	—	34
Pollen,	—	34
Polymnia,	—	201

R

<b>R</b> ADIATED Flowers,	72, to 77
— Ragwort,	204, 79
— Ragwort,	79
— Ray's Sytem,	42
— Receptacle,	36
— Red-Cup,	201
— Rivinus, his Sytem,	45
— Roots,	13
— Bulbous,	13
— Tuberos,	13
— Fibrous,	14
— Roughweed,	198
— Royen,	58
— Rudbeckia,	112
— Rudiment,	34

S

<b>S</b> ANDWEED,	—	190
— Sap, its Rise and Fall,	—	9
Sauvages,	—	64
Scalewort,	—	166
Scapus,	—	15
Scentwort,	—	194
Seasons,	—	

# I N D E X.

	Page		Page
Seasons, their effects, —	5	T	
Seed, —	35		
Seed Vessels, —	34	<b>T</b> A B L E of Classes, —	70
Seggrom, —	79	Tagetes, —	77
Senecio, —	202	Tetragonotheca, —	92
Sheath, —	32	Threads, —	34
Sigesbeckia, —	93	Tickfeed, —	115
Silphium, —	117	Tops, —	34
Simson, —	185	Tcurnefort, —	45
Sky-flower, —	100	Tridax, —	140
Solidago, —	177	Tussilago, —	87
Solidago Seracenica, —	208	Twinweed, —	119
Spatha, —	32		
Sphæranthus, —	195	V	
Spherewort, —	195	<b>V</b> E G E T A T I O N, —	1
Stamina, —	34	Varieties, —	37
Stems, —	15	Verbesina, —	98
Stigma, —	35		
Stoneweed, —	98	W	
Style, —	35	<b>W</b> A C H E N D O R F, his Method, —	63
Summits, —	34	Water, effects, —	6
Sunflower, —	122	Weltwort, —	89
Sunflower, Base, —	92	White weed, —	200
Sunflower, Dwarf, —	112		
Supports of Plants, —	17	X	
Swamp Flower, —	90	<b>X</b> E R A N T H E M U M, —	162
<b>S Y S T E M S</b> , of Botany, —	41		
— Boerhaave's, —	49	Y	
— Cæsalpinus's, —	41	<b>Y</b> A R R O W, —	169
— Gleditch's, —	63		
— Haller's, —	60		
— Herman's, —	43		
— Linnæus's, —	53		
— Magnol's, —	52		
— Morison's, —	41		
— Ray's, —	42		
— Rivinus's, —	45		
— Royen's, —	58		
— Sauvages's, —	64		
— Tournefort's, —	45		
— Wachendorf's, —	63		
— Of this Work —	66 to 70		

















